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ABSTRACT

This dissertation investigated the factors that influence persistence of minority students in community colleges. The population for this study consisted of minority students enrolled in diploma and degree programs in the fall semester of 1999 at two community colleges in Kansas City, Missouri. A total of 232 students (165 females and 67 males) from 4 minority ethnic backgrounds--American Indian, Asian Pacific Island, African American, and Hispanic/Mexican American. Various variables were examined, including age, gender, ethnicity, enrollment status, family income status, employment status, family responsibility, social integration, and academic integration. The study found that female students generally had a higher persistence rate than male students; however, environmental factors played a greater role in students' decisions to persist than did demographic factors. Employment and family responsibility were identified as the two most powerful environmental factors affecting minority student persistence. In addition, there were gender differences in the degree of influence of each environmental variable. For example, while academic integration was found to have a stronger influence on the persistence of female students, social integration and goal commitment had a stronger influence on male student persistence. (Contains 124 references.) (GC)

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FACTORS AFFECTING MINORITY STUDENTS' PERSISTENCE IN COMMUNITY COLLEGES

A DISSERTATION IN
Urban Leadership and Policy Studies in Education
and
Education

Presented to the Faculty of the University
of Missouri-Kansas City in partial fulfillment of
the requirements for the degree

DOCTOR OF PHILOSOPHY

by
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2000

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FACTORS AFFECTING MINORITY STUDENTS' PERSISTENCE IN COMMUNITY COLLEGES

Falilu Mohammad A. Matti, Doctor of Philosophy
University of Missouri-Kansas City, 2000

ABSTRACT

In an attempt to understand minority students' persistence behavior in community colleges, this study investigates factors that influence persistence of minority students in two community colleges within the Metropolitan Community College District of Kansas City, Missouri.

The theoretical framework designed by Tinto (1975; 1987) to explain and predict persistence of college students was used in this study. The Tinto model was used because it emphasizes the effects of congruency between student motivation and academic ability and institutions' social and academic characteristics. Furthermore, Tinto's model views academic achievement as a measure of students' degree of integration into an institution's academic and social environment.

The data was analyzed by calculating means, standard deviations, frequencies counts, percentages and by using the chi-square application of the Statistical Package for Social Science (SPSS) developed by Norusis (1994). The .05 level of

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significance was used to test for significant difference in the factors that affect student persistence between specific student sub groups.

The results of this study contributes to understanding the factors which influence student decisions to persist or withdraw from community colleges. The findings of this study provide information that might help administrators gain an understanding of the factors that influence minority students' persistence and determine types of intervention techniques needed to enhance minority students' persistence. The findings of this study provide academic administrators and other leaders in higher education information about the factors affecting minority students' persistence in community colleges. Administrators and faculty may be able to devise intervention strategies for admission, recruitment, enrollment and retention programs that improve minority students' persistence rate.

This abstract of 260 words is approved as to form and content.

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The undersigned, appointed by the Dean of the School of Graduate Studies, have examined a dissertation titled "Factors Affecting Minority Students' Persistence in Community Colleges," presented by Falilu-Mohammad Matti, candidate for the Doctor of Philosophy degree, and hereby certify that in their opinion it is worthy of acceptance .

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DEDICATION

This work is dedicated as a memorial to my friend and advisor, Dr. Ralph Parish. My constant remembrance of you encouraged me to persevere. I was always aware that you wanted me to succeed, from the beginning and throughout my doctoral program. I could not have come this far without your caring and continued encouragement. I will always miss you and may your soul rest in peace.

CHAPTER 1

PROBLEM STATEMENT

The renewed focus of research on minority students' intention to remain in college has enhanced the drive to understand the factors that influence minority students' decision to remain in college. An understanding of this issue is of importance in reversing the higher attrition rate among this group of students. Although the percentage of ethnic minority students enrolled in U.S. colleges and universities steadily increased from 11.5% to 14% over the 10-year period from 1982 to 1992, only 10% of those who graduated in 1992 were African American, Latino, or American Indian (Almanac of Higher Education, 1995). The persistence of minority students at the community colleges and other institutions continues to represent a major concern. Understanding factors affecting minority students' persistence is critical (Bilal, 1996; Greenberg, 1997), so that effective intervention programs, at the institutional level may be undertaken to prevent minority student's withdrawal decision.

The model of persistence has provided an underlying theory which has considerable empirical support (Tinto, 1975; Pascarella, 1980). This investigation applies the theory of student persistence behavior to this problem in an effort to determine the factors influencing minority students' persistence/withdrawal decisions in two community colleges within the Metropolitan Community College District of Kansas City, Missouri.

Student Persistence Theory

A review of the literature reveals that the early theoretical models of persistence/withdrawal from college were developed by Astin, 1975; 1977; Bean, 1982; Pascarella & Terenzini, 1980; Spady, 1971; Tinto, 1975; and Terenzini, Lorang, & Pascarella, 1981. In varying degrees, these models are based upon Durkheim's (1951) theory of suicide, which concluded that suicide was most likely to occur among individuals who felt alienated from society. Accordingly, students most likely to drop out of college are those who are not adequately integrated academically and socially into the college environment. These theoretical models have been applied in studies conducted in two and four-year institutions (Astin, 1975; Bean, 1982; Cleveland-Innes, 1994; Dowaliby, Garison & Dagel, 1993; Lenning, Beal & Sauer, 1980; Mackay & Kuh, 1994; Pascarella & Terenzini, 1979, 1980; Pascarella, 1980; Spady, 1971; Stryker, 1997; Tinto, 1975, 1987, 1993; Wolfe, 1993).

Although a number of studies have been conducted on two and four year college students' persistence, these studies share an emphasis on the importance of academic and social integration into the college environment as a primary factor in students' persistence (Pascarella, 1980; Pascarella & Terenzini, 1979, 1980; Spady, 1971; Stryker, 1997; Tinto, 1975, 1987, 1993; Wolfe, 1993).

Previous research has shown that academic and social integration are influenced by a variety of factors (Cleveland-Innes, 1994; Donovan, 1984; Lenning, Beal & Sauer, 1980; Tinto, 1975, 1987) These factors include student background characteristics (e.g., gender, ethnicity, socioeconomic status), and institutional characteristics. Others researchers identified factor that influence students' persistence and their degree of influence on students' persistence (Bilal, 1996; Brantley, 1996; Crisp, 1997; Davis, 1996; Dorsey, 1995; Gonzalez, 1997; Greenberg, 1997; Hartl, 1997; Howard-Hamilton & Taylor, 1995; Robinson, 1996).

Factors such as background demographics, grade point average (GPA), academic and social integration, institutional commitment, encouragement and support from others have been identified in the literature to have had some degree of influence on college students' persistence. Trawick's study (1994) identified background characteristics (e.g, age, ethnicity, gender, socioeconomic status) as a factor that could potentially affect students' persistence. Greenberg (1997) studied factors that influence persistence among students at a public two-year college. He identified encouragement and support from others, institutional commitment, academic and social integration, and self-motivation (goal commitment) as factors influencing persistence. In a study designed to predict institutional persistence in first-year community college students, using Tinto's theory, Stryker (1997) found that variables representing each of the major components of the Tinto (1975) model of college students' persistence/withdrawal behavior were related to first-year community college students' persistence. In particular, Stryker found that ethnicity, age, gender, academic ability, part-time versus full-time status, grade point average, academic integration, social integration, and institutional commitment were directly and/or indirectly related to institutional persistence.

Tinto's (1975) model has been used extensively with traditional four-year, residential college student populations (Pascarella & Terenzini, 1979; 1980; Terenzini, Lorang, & Pascarella, 1981). Although a number of studies have been conducted on two-year college students' persistence, many of these studies employed Tinto's model as a theoretical framework and share an emphasis on the importance of social integration into the college environment as a primary factor in students' persistence (Pascarella, 1980; Pascarella & Terenzini, 1979; Spady, 1971; Stryker, 1997; Tinto, 1975, 1987, 1993; and Wolfe, 1993). The concept of academic integration and social integration has been repeatedly used in models of students' persistence/withdrawal behavior (Pascarella, 1980; Pascarella & Terenzini, 1979; Spady, 1971; Stryker, 1997; Tinto, 1975, 1987, 1993; and Wolfe, 1993). For commuter community colleges, the findings for academic and social integration have been mixed, due to the non-residential nature of most community colleges, this social integration may be less relevant to nontraditional students on commuter campuses who typically have strong external commitments and support systems (e.g., family responsibilities, employment, and friends). Therefore, the concept of academic integration was expected to be a greater influence on student persistence than social integration.

A number of criticisms have been raised against Tinto's model of students' persistence/withdrawal. Cabrera, Nora, and Castanada (1992) for instance, state that Tinto's model fails to note external factors because students with external preoccupations normally do not develop a sense of institutional affiliation critical to persistence (or retention). In addition, other studies have examined the validity of Tinto's model as it applies to the non-traditional students on commuter campuses. Earlier, Pascarella, Duby, and Iverson (1983) applied Tinto's model to a non-residential commuter campus, and found these students less involved in the non-academic social environment of the institution. More recently, Halpin (1990), concluded that due to the lack of opportunities for social involvement with faculty and peers, at a commuter institution rather than at a residential college, environmental variables would play a lesser role, and pre-enrollment characteristics would play a greater role in determining persistence. Pittman (1997) concluded that Tinto's model was not appropriate for examining certain factors affecting student continuation in two-year postsecondary institutions because two-year postsecondary institutions provide a different environment than four-year colleges and universities.

According to Astin's (1975, 1977) theory of student involvement, the more involved a student is with his/her student learning, personal development and persistence in college, the greater the amount of student learning, personal development and persistence. Astin (1975, 1977) defined involvement as the amount of psychological and physical energy that students devote to collegiate activities such as studying, interacting with faculty and other students, participating in campus clubs and organizations, and spending time on campus. Astin found that students who were enrolled full-time, participated in campus clubs or organizations, lived on campus, studied hard, and frequently interacted with faculty and other students, showed higher persistence rates in college. Trawick (1994) found student's involvement in extracurricular activities appeared to have a positive influence on the younger age group, and a negative influence on older age group.

Community Colleges

Community college is defined herein as a two-year public or private institution accredited to award Certificate and Associate's degrees as its highest degrees. Community colleges represent one of the fastest growing segments among institutions of higher education, and are often characterized as having many low socioeconomic and minority students (Hetherington, 1995; Dougherty, 1994). Community colleges serve students of all ages, ethnic groups, and backgrounds. Forty-eight percent of racial/ethnic minority undergraduate students attend a community college (American Association of Community Colleges 1998). According to the American Association of Community Colleges (1998), nearly two-thirds of community college students are older than the traditional age of 21, and the number of students aged 40 or older is projected to increase significantly in the next few decades. The student population at a two-year college, as opposed to a traditional four-year college or university, is different in that the former has a larger proportion of older students, women and minorities (Cohen & Brawer, 1989; Dougherty, 1994). More students come from lower social classes and attend part-time, while working 30 hours or more per week (Roueche & Roueche, 1994). Unlike traditional four-year colleges or universities, two-year colleges also serve larger numbers of the very poor, the physically, psychologically and learning disabled, the unemployed or underemployed, immigrants, returning women, the less academically able, and first-generation college students (Cohen & Brawer, 1989; Roueche & Roueche, 1994).

Researchers agree that the lack of student persistence in community colleges may be due, in part, to the lack of academic preparation of many students, students' lack of financial resources, and external preoccupations (Cohen & Brawer, 1989; Dougherty, 1994; Roueche & Roueche, 1994). Student characteristics, however, are not the only factors that contribute to a low level of student persistence. Institutional factors contribute towards low rates of persistence at community colleges or the lack of preselection criteria (Cohen & Brawer, 1989) and the lack of financial aid (Brewton & Hurst, 1984; Dougherty, 1994).

Two-year college students are considered to be less involved in extracurricular activities, have less contact with faculty and peers outside the classroom, and have more commitments external to their academic lives than do their counterparts attending four-year, residential institutions. This lack of involvement is hypothesized to impede integration of students into the college environment, resulting in non-persistence (Dougherty, 1994).

Astin's (1977) longitudinal study of college students found a pattern of predictors that suggest a stereotype of the college persister as a person with high grades in high school, high aspirations, affluent parents, and the ability to postpone gratification. Many students in highly selective institutions fit this stereotypical model of a college persister. In describing persisters and non-persisters, Astin (1975, 1977) found that students who were enrolled full-time, participated in campus clubs or organizations, lived on campus, studied hard, and frequently interacted with faculty and other students, showed higher persistence rates in college. Conversely, students who were enrolled part-time, live at home, infrequently studied, and worked off-campus showed higher dropout rates.

Even though a number of studies have investigated reasons underlying minority students limited levels of persistence in community colleges, many factors important in determining minority students' persistence remain to be investigated. Thus, to better comprehend the factors influencing minority students' persistence/withdrawal behavior on urban commuter campuses, new variables need to be examined such as in this study. Minority student is defined as belonging to one of the following groups: African American, Hispanic or Mexican American, Asian American, and American Indian. A Non-minority student is Caucasian or White students.

According to Lewallen (1993), student persistence is a highly complex, multi-dimensional phenomenon, and to conclude that students' persistence behavior can be explained by a single student characteristic as Tinto's model suggests, seems unwise. Thus, to better understand factors affecting minority students' persistence/withdrawal behavior, the variables of current persistence (or retention) models may need to be reformulated and validated (Desler, 1987). This study emphasizes the importance of external factors in determining minority students' persistence in the community college setting.

Proposed Study

Despite recent interest, there remains a relative lack of literature on factors affecting minority students' persistence in the community college setting. The motivations of this study is to help fill this gap by enhancing the understanding of factors affecting minority students' persistence in community colleges.

Purpose

The overall purpose of this study is to determine what factors affect minority students' persistence in two community colleges within the Metropolitan Community College District of Kansas City, Missouri. This study focuses on the following selected characteristics: age, gender, ethnicity, part-time and full-time enrollment status, number of semesters attended, employment, family responsibilities and amount of time spent studying, academic integration, grade point average (GPA), institutional commitment, goal commitment, and intent to continue.

Research Questions

The goal of this study is:

1. To determine what factors affect minority students' persistence in a community college setting,
2. To what extent do the student demographic and

environmental variables of age, gender, ethnicity, socioeconomic status, enrollment status, employment, and family responsibilities affect minority students' persistence,

3. To what extent does academic and social integration affect minority students' persistence,
4. To determine whether there are significant differences between specific student subgroups, such as ethnic minorities and gender (male and female students), and
5. To make comparisons between colleges within the Metropolitan Community College system.

Rationale

This study is motivated by a number of important considerations. First, few studies have been published on the factors that affect minority students' persistence in a community college setting. Second, retaining minority students and increasing minority student enrollments requires a critical understanding of factors pertinent to recruiting and retention. Third, in order to increase minority students' persistence rates, college administrators must have a thorough understanding of the factors contributing to and affecting minority students' persistence. Fourth, administrators in higher education, and community colleges in particular, must be knowledgeable about factors affecting minority students' persistence and their reasons for leaving. This study provide information on which to build programs that give a means of intervention and increase minority students persistence and retention in community college settings. Fifth, helping this rapidly growing college student population gain access to college, and complete educational goals is a major challenge of the twenty-first century for higher education administrators.

Significance of the Study

By identifying the factors affecting minority students' persistence in community colleges, this study will enhance the ability of administrators and faculty to develop educational delivery systems and services that assist more students to reach their educational goals. In addition, the findings of this study will help administrators and faculty design intervention strategies and, in some cases, recruitment, enrollment and retention programs that improve minority students' persistence rates. Furthermore, this study is significant in that the lack of student persistence in education has continued to be an issue of considerable interest to many institutions of higher education, especially, at the community college level. The impact of non-persistence can be felt at many levels. At the societal level, the decision of a student to drop out represents a loss of educated manpower (Kowalski, 1977). At the institutional level, the institution is considered a failure in its efforts to bring about the ideals of equal educational opportunity and open access to all students, (Bilal, 1996; and Ramirez, 1996; Bowles and Gintis 1976).

Using persistence rates as an indicator of whether or not an institution is fulfilling its function, higher educational systems, community colleges in particular, have been criticized for serving the opposite functions, (Blackwell, 1994; MacKay & Kuh, 1994; Seehusen, 1996; Wyman, 1997). Finally, at the personal level, concern exists for the student due to personal loss of a potential lifetime income and the consequent limitations which may accompany the non-persister throughout his/her life.

The findings of this study of minority college students' persistence will be valuable to administrators, faculty members, and counselors in identifying students who are at risk to dropout. These findings can help them gain better understandings of the personal and institutional barriers, or factors, influencing minority students' persistence. In addition, this study would provide information to those who are charged with the responsibilities to create effective and efficient programs and initiatives for retaining minority students.

The results of this study will be useful to individuals in charge of admissions, recruitment, retention and persistence programs.

The findings of this study will be valuable to students who wish to pursue related studies on students' persistence in community college environments.

Chapter 2 contains a review of the research relating to the factors affecting minority students' persistence in community colleges. The summary at the end of the review indicates the need for studies to be conducted on minority students' persistence.

Chapter 2

REVIEW OF LITERATURE

This chapter focuses upon studies pertaining to the factors affecting students'persistence in the community colleges. In addition, this chapter provides a critical analysis of the variables frequently cited and investigated in the literature.

A review of the literature on persistence reveals that a wealth of research has been done on factors that influence the persistence of students at two and four year institutions (Bean, 1982, 1985; Bean & Metzner, 1985; Greenberg, 1997; Pascarella, 1980; Spady, 1971; Stryker, 1997; Tinto, 1975; White, 1997). This body of research has led to the development of several closely related theories that provided models for studying factors and applying the findings to institutional reforms designed to promote students' persistence (Astin, 1975, 1977; Bean, 1982; Pascarella & Terenzini, 1980; Spady, 1971; Terenzini, Lorang, & Pascarella, 1981; Tinto, 1975). Tinto (1975, 1987) describes an interaction of student background characteristics with environmental, social, and academic factors that promote or inhibit a student's academic and social integration into the college which, in turn, promotes or inhibits persistence.

Student Persistence Theory

Theoretical models have been developed on students' persistence/withdrawal theory. Spady (1970) proposed the first theoretical model, Tinto (1975) built on Spady's model and Pascarella (1980) expanded Tinto's (1975) model with the development of the Institutional Integration Scales (IIS) which were designed to measure academic and social integration and institutional commitment. Bean and Metzner (1985) developed a conceptual model of student attrition which took background variables into consideration. In 1987, Tinto added environmental variables and student intentions to update his model.

Theoretical Models of Persistence

The literature revealed persistence theories as one of the most researched topics in higher education, often referred to as the college-impact theories which focus on the environmental or sociological origins of change in college students. These college-impact theories of change developed by (Astin, 1980, 1985; Pascarella, 1980, 1985; Tinto, 1975, 1987) possess several common features or propositions. Although, each presents an alternative conception, all place a prominent emphasis on the context in which the student interacts with environments. These models differ in specific structural elements and nomenclature, and they tend to view persistence as mainly a function of the student's fit or match with the college environment. Institutional characteristics (organization, policies, programs, and services, both academic and non-academic), along with the attitudes, values, and behaviors of the members of the institutional environment, are all potential sources that may impact student persistence.

Bers & Smith (1991) report that one of the most productive approaches to studying student persistence has been through longitudinal research grounded in theories about student persistence and attrition. Similarly, Voorhees (1987) reports that no conceptual model of student persistence behavior has been advanced, designed specifically for the two-year college setting, which adequately accounts for student background characteristics, and how students interact within the community college environment.

Persistence/Attrition Rate

Tinto (1993) and others have noted high rates of attrition during the first year in college (Astin, 1975, 1985; Tinto, 1987). In their nationwide study, Beal and Noel (1980) reported that an average of 34% of the full-time, first year students were not at the same institution one year later. Likewise, Lenning et al. (1980) concluded that attrition is not only a local and state problem, but a national problem as well. The attrition rate for public two-year institutions nationally is 59% after three years (Lenning, Beal and Sauer, 1980). The completion of a two or four year degree for this group can be projected to be 46% while 54% will leave the institution (Tinto, 1993). For four year public institutions the attrition rate nationally is 47% after five years, while at four year private institutions the attrition rate is 40% after five years (Lenning et al. 1980). Approximately 61% of those who pursue a four-year degree will earn one while 34% will leave the institution (Tinto, 1993).

Feiger (1991) conducted a national study whose objective was to identify the characteristics of students attending two-year colleges and to determine how these characteristics influenced the students' educational experience. The students' characteristics examined included: age, high school grade point average, age of children living in the home of the student, and ethnicity. Feiger (1991) defined the students' community college experience, in this study, in terms of barriers that prevented students from taking a full college load, pressures experienced while attending college, level of participation in student services, benefits associated with attending college, and choice of major.

Feiger (1991) found that:

1. Twenty-six percent of the students in the survey came from ethnic minority groups.
2. Forty percent of the students cited finding time to study and work as barriers to taking a full course load.
3. One-third of the Asian students and Hispanic students indicated that inadequate finances kept them from taking a full course load.
4. Students 36 years of age and older reported more positive benefits than younger students.
5. Asian and Caucasian students had the lowest participation rates in student services of all groups.

Also, in 1991, the Colorado Commission on Higher Education conducted a study of student graduation, transfer, and persistence rates throughout the Colorado publicly supported postsecondary system. The study reports college transfer and persistence and completion rates were highest for Whites (46.8%), and lowest for Blacks (26.1%). The study also found that at the four-year institutions, the completion and persistence rate was highest for Asians (68%), and lowest for Blacks (44.9%). In their study, Martens et al., (1995) reported that "during the 1970s and 1980s, half of the minority students participating in higher education were enrolled in community colleges" (p.8). In addition, according to Schwartz (1990), it is estimated that 42 percent of students enrolled in community colleges and 46 percent of students enrolled in technical institutes will leave prior to graduating and will not pursue further education.

High Risk for Attrition

The growing population of commuter students on college campuses has been identified as a particular high risk for attrition (Astin, 1975, 1977, 1985; Tinto, 1987). The importance of commuter students retention becomes apparent, considering that students who do not live on campus account for more than 80% of the students in American higher education today (Jacoby, 1989; Rue & Stewart, 1982).

Recently, researchers have turned to persistence theory in an attempts to explain student departure and persistence behavior patterns (Astin 1985; Nora et al., 1990; Pascarella & Terenzini, 1991; Webb 1989). Popular among the persistence researchers is the work of Tinto (1975, 1987, 1993), who drew from Spady's (1971) works based on Durkheim's (1951) research on suicide. Durkheim's (1951) theory of suicide, examines the role the social environment plays in incorporating or excluding an individual. In other words, the factors that resulted in student persistence or withdrawal from college are viewed as analogous in kind, if not to some degree, or to the factors that Durkheim determined had led to suicide or to persistence in society. We live in a society that has made it heartbreakingly, unnecessarily difficult for people to get what they want, or even to believe that they should or can get it. Durkheim (1951) found that the greater the value consistency, and the stronger the relationships with other people, the more integrated a person is in a society. Hence, the greater the degree of integration, the greater the likelihood that a person will persist in the society. In much of the research on student persistence and withdrawal behavior in college setting, many theories and models have been advanced to explain the factors contributing to community college students persistence and withdrawal behavior. However, Tinto's model has been the most extensively tested and used to study college persistence/withdrawal behavior.

Accordingly, Dowaliby, Garison and Dagel (1993) indicated that:

> there have been many tests of the predictive validity of Tinto's (1975) theoretical model of student persistence in postsecondary educational institutions . . . the model of student persistence posits that certain preentry attributes, in conjunction with institutional academic and social experiences, determine the extent to which students integrate into an institution (p.513)

Several other researchers have found support for Tinto's assertions about the roles of academic and social integration in student persistence (Allen & Nelson, 1989; Cleveland-Innes, 1994; Dowaliby, Garison and Dagel, 1993; Feldman, 1993; Fox, 1986; Mutter, 1992; Nora et al., 1990; Pascarella & Chapman, 1983; Pascarella, Duby, & Iverson, 1983; Pascarella & Terenzini, 1980; Stoecker, Pascarella & Wolfle, 1988; and Webb, 1989).

Tinto's model

A longitudinal model of the persistence and withdrawal process was developed by Tinto (1975, 1987) to explain college student withdrawal behaviors in the educational environment. Tinto's longitudinal model is based largely on degree of fit between the individual student and the institutional environment. Tinto's model concentrates on the impact of the institution and asserts that the quality of a student's interactions with the academic and social systems of the institution were related to whether he/she persists or drops out.

Tinto's model argues that an individual's departure from an institution can be viewed as arising out of a longitudinal process of interactions between the individual with given attributes, skills, and dispositions (intentions and commitments) and members of the academic and social systems of the institution (Tinto, 1987, 1993). Building on Spady's work (1970, 1971), Tinto (1975, 1987, 1993) formulated a theory explaining the process that motivates individuals to leave college before graduating. Tinto's (1975, 1987, 1993) model suggests that students come to a particular college or university with a range of background traits (e.g., race, secondary school achievement, academic aptitude, family education, and financial context). These background characteristics lead to initial commitments, both to the goal of graduation from college and to the specific institution attended. Together with background characteristics, these initial commitments are hypothesized as influencing, not only how well the student will perform academically, but also how he/she will interact with and subsequently, become integrated into the institution's social and academic systems. Other things being equal, the greater the individual's level of social and academic integration, the greater his/her subsequent commitment to the institution and commitment to the goal of college graduation. These subsequent commitments, in turn, are seen, along with levels of integration, as having a positive influence on persistence. However, Tinto's model argued that both social and academic integration into a university are necessary for students to persist until completion of their degrees. Tinto (1975) and many of those who tested his model empirically, such as: Fox (1986); Pascarella & Chapman (1983); Pascarella, Duby, & Iverson (1983); Pascarella & Terenzini (1980); and Stoecker, Pascarella & Wolfle (1988) used the concepts of social integration and academic integration to explain persistence. In addition to the theoretical model, previous research demonstrated the importance of variables such as involvement, academic and social integration and commitment to college persistence (Astin, 1985; Pascarella & Terenzini, 1980; Spady, 1971).

Tinto's (1975) model specifies that upon entering college, students came with a variety of attributes or pre-college experiences and demographic characteristics that have an impact on determining educational expectations and commitments. Students' educational expectations and commitments represent initial institutional and goal commitments as a result of the students' integration into the academic and social systems of the institution (Tinto, 1975). The decision to withdraw or remain in college until completion is made as a result of the students' social and academic integration. Therefore, students' background characteristics, initial commitments, and integration process could conceivably have an impact on persistence decisions (Tinto, 1975).

Tinto's model of student persistence and withdrawal processes, was developed for residential colleges which focus on the elements of student academic and social integration as key variables underlying student persistence. In Tinto's theory, it is argued that the more a student integrates himself/herself into the social and academic life of campus, the more he/she becomes committed to the goal of graduation, and develops loyalty to the individual institution, and the greater are the chances that the student will persist and graduate (Mutter, 1992).

Studies on Two-year and Four-year Colleges

Many conceptual studies of student persistence have been conducted within four-year college and university environments (Cleveland-Innes, 1994; DeSousa & King, 1992; Dowaliby, Garison and Dagel, 1993; MacKay & Kuh, 1994; and Wolfe, 1993). Findings generated by these studies focus primarily on students at four-year college campuses. No conceptual model of student persistence behavior has been advanced or designed specifically for the two-year college setting (Voorhees, 1987), which adequately accounts for student background characteristics and how students interact within the two-year college environment. The most widely cited of these persistence models, the Tinto model (1975, 1987, 1993), has been used to explore the persistence behavior of two-year college students. For example, the Cleveland-Innes (1994) study investigated the usefulness of Tinto's (1975) model of student attrition for age-related sensitivity at a large commuter university. Her study considered variables such as background demographics, educational level, academic integration, social integration, and commitment factors in order to show how the relationships among variables in Tinto's model might vary for different student age groups.

Pascarella & Chapman (1983) tested Tinto's model of college persistence and withdrawal, developed for residential colleges, at a nonresidential institution. They concluded that the concepts of person-environment fit, social integration, and institutional commitment operated differently in the commuters' institution. In another study, Fox (1986) applied the conceptual model of college persistence and withdrawal to disadvantaged students. He investigated the retention and attrition after the freshman year among economically and academically disadvantaged students admitted through a special program to an urban, primarily non-residential university. His study examined the relationships among a variety of factors utilized by Tinto.

Earlier, Pascarella (1982) conducted a validation of a theoretical model of college dropouts, in which he examined the extent to which Tinto's model of college withdrawal had predictive validity in different types of postsecondary institutions during the 1978-79 and 1979-80 academic years. However, Pascarella (1982) concluded that the relationships among the constructs of social, academic involvement, institutional commitment, and commitment to the goal of graduation and persistence were marked by more consistency with theoretical expectations in the residential and liberal art samples, than in the two or four-year commuter samples.

Exploring Tinto's model, Cleveland-Innes (1994) found that individual student characteristics, degrees of integration, and levels of commitment interact in ways that allow persistence and withdrawal behavior to vary within this model, the characteristics of the student population are of primary importance. Similarly, using Tinto's theory, Wolfe (1993) found there were group differences on the social integration as well as gender differences on academic success of first-year commuter and resident students.

Pascarella and Terenzini (1983) conducted a path analysis to provide a comprehensive test of the validity of Tinto's causal model of voluntary withdrawal from a postsecondary institution. Their study tests Tinto's hypothesis of compensatory interactions between social and academic integration and between institutional and goal commitment.

Mutter (1992) employed Tinto's (1987) theory of departure to try to explain and gain an understanding of community college student persistence and non-persistence patterns at a large, urban, Midwestern community college. Mutter (1992) suggested an alternative approach to studying student persistence, an approach that focuses not only on students' experiences while at the institution, but on their initial educational objectives and their intentions to remain or leave their current college or university.

Factors Relevant to Persistence and Non-persistence

This section discusses factors relevant to persistence and non-persistence and reports findings in the general area of persistence and non-persistence studies. This information is useful for background understanding to the persistence problem. In order to better understand the factors that contribute to student persistence and non-persistence in community colleges, the literature review focuses primarily on: (1) Background demographic and Initial Commitment, (2) Academic and (3) Social Integration.

Researchers have investigated students' demographic, academic, and social attributes, including age, ethnicity, gender, grade point averages, full-time, part-time status, financial aid status degree expectations that may be connected to college persistence (Mestre, 1983; Mingle, 1987; Windham, 1994). When examining the literature concerning demographic characteristics, a factor frequently cited as critical to persistence is socioeconomic status, or one of its component parts such as parental education or family income (Mestre, 1983; Mingle, 1987). Mestre (1983) found that socioeconomic factors are influential in academic achievement, and Mingle (1987) found that high-income students are four times more likely to complete their degree programs than low-income students.

Additional factors affecting student persistence were investigated in other studies (Cleveland-Innes, 1994; Dowaliby, Garison and Dagel, 1993; Feldman, 1993; Mutter, 1992; Tinto, 1975, 1987; and Webb, 1989). Such studies concluded that academic achievement, financial aid, employment, day/evening status, goal commitment, and expected student/college fit had primary effects on persistence, while background characteristics and academic self-confidence had secondary effects.

Another factor reported to be related to student persistence in college is the quality of effort students invest in their college experience (Pace, 1982, 1984). Pace (1982, 1984) noted that the prerequisite to learning and development is the investment of time and effort students voluntarily devoted to this process of learning (e.g, involvement).

In this study, demographics such as: age, race, gender, grade point average, full-time, part-time status, degree expectations, commitment, academic and social integration were investigated.

Demographic Background Characteristics

Age

Cleveland-Innes (1994) argued that age must be considered as a necessary control variable to clearly understand the dropout process. In investigating the age factor, Cleveland-Innes (1994) maintained that:

> the age groups of student populations continue to change and adult or nontraditional-age students enroll in increasing numbers and in order to see the issue of student attrition clearly, age-related characteristics and their impact on the decision to persist or withdraw must be considered (p.423).

Feldman (1993) concluded that age was a predictor of persistence both alone and in competition with other predictors. In his study, Feldman found that "students aged 20-24 were 1.77 times more likely to drop out than students aged 19 or younger," and "the age groups 25 and older were less likely than the youngest students to dropout" (p.511).

Gender

In exploring factors associated with one-year persistence in a community college, Feldman (1993) reported that "given prior research and present findings, gender may play a role in persistence but may not be as important as other considerations"(p.509). He found that gender was related to persistence when tested by itself, and that females had a higher persistence rate than males. Mutter (1992) also acknowledged that:

> gender and race, account for major differences between students at traditional private 4-year colleges and at the people's college (the community college), because the former was reserved for male and Caucasian and the latter serves more women and minorities (p.310).

Ethnicity

A factor of continuing interest is ethnicity. Feldman (1993), reported that ethnicity is associated with persistence in that minority students showed a greater likelihood of dropping out than whites. Furthermore, the results of Feldman's study suggest that:

> ethnicity was significantly related to persistence both on its own and within the logistic regression equation. . . nonminority students had a higher persistence rate than minority students . . . and minority students showed a greater likelihood of dropping out than nonminorities (p.510).

Enrollment status

The factor of part-time and full-time enrollment is of interest to this study due to the nature of the commuter campus and the commuter students. Astin (1975) found that students who were highly involved (e.g., those who were enrolled full-time, participated in campus clubs or organizations, lived on campus, studied hard, and frequently interacted with faculty and other students) showed higher persistence rates in college. Conversely, students who were not involved (e.g., those who were enrolled part-time, lived at home, infrequently studied, and worked off campus) showed higher dropout rates from college.

Academic Integration

Studies on student persistence have shown that many factors not directly associated with classroom activities can influence academic performance. Mutter (1992) indicated that academic integration may be associated with persistence or nonpersistence of the students in the study. Her study concluded that the findings tend to support Tinto's (1987) theory of departure in that selected factors of social and academic integration and goal and institutional commitment were associated with student persistence in the study.

Grade Point Average

Students with solid academic backgrounds and high academic ability are more likely to persist, as are those who are more certain of their major. According to Bean (1982), when a student develops proper academic attitudes, like integrity, delayed gratification, and valuing scholarship, the student is likely to perform well academically, which is manifest in a high, or at least a rising, grade point average.

Tinto (1975) noted that many studies have shown grade performance to be the single most important factor in predicting persistence in college. Pantages and Creedon (1978) found that during the 1950s, 1960s, 1970s, academic factors accounted for the higher attrition rate among Black students. Pantages and Creedon (1978) concluded that academic variables are still the strongest single-variable predictors presently available in the study of persistence.

Social Integration

Abrahamowicz (1988) explored the difference in satisfaction with the college experience between students who participated in college activities and student organizations and students who did not participate. He found that participation and involvement in organizations greatly contributed to students' perceptions, satisfaction, and overall involvement with colleges and universities. Not only do student organizations and related activities provide educational benefits generally unattainable in the classroom, but there is evidence to indicate that they may be important factors in involving students with their colleges in a way that enhances retention (Abrahamowicz, 1988).

According to Tinto (1987), social atmosphere (e.g., a social climate that instills a sense of comfort) is an important determinant of college persistence. A sense of campus community is important for all students, but it is more important for those minority students who attend predominantly White institutions (Pascarella, 1985).

According to Astin (1975), a student either feels a sense of belonging or alienation. Students who feel a sense of belonging or became part of a college or university, are students, who are involved, and are likely to be academically successful than those who do not feel a sense of belonging nor received social support (Astin, 1975).

Student and Peers Interaction

Loo and Rolison (1986) and Tinto (1975), concluded that: (1) the greater and more meaningful students' interaction with both peers and faculties within the campus environment, (2) whether having a job on campus, belonging to a campus club or organization, meeting with a faculty outside of class, or living on or near the campus, the greater reported levels of students social integration.

Student and Faculty Interaction

Students who had more frequent informal contact with faculties than their peers were more likely to report greater progress in the development of academic skills and positive attitudes toward the college experience (Pascarella & Terenzini 1980).

Meaningful contacts with faculties in a non-academic setting have also been shown to have a positive impact on retention (Terenzini & Pascarella, 1977, 1980; Tinto, 1975, 1987).

CHAPTER 3

METHODOLOGY

This study investigated factors affecting minority students' persistence in two-year community colleges. This chapter describes the theoretical framework and methodological approach, which includes the identification of the setting, population and sample, measures, review of the instrument, presentation of the procedures, and the research questions.

Specifically, the goal of this study was: (1) to determine what factors affect minority students' persistence in community colleges, (2) to what extent do the demographic and environmental variables of age, gender, ethnicity, socioeconomic status, enrollment status, employment, and family responsibilities affect minority students' persistence in community colleges, (3) to what extent do the variables of academic and social integration and goal commitment affect minority students' persistence in community colleges, (4) to determine whether there are significant differences between specific student subgroups, such as male and female students, and (5), to make comparisons between two colleges within the Metropolitan Community College District of Kansas City, Missouri.

Theoretical Framework

The theoretical framework used for this study was based on Tinto's theoretical model of students' persistence theory. Three major constructs from Tinto's model (1975) were selected for this study: academic and social integration, goal commitment, and student persistence behavior or the intent to continue. Research has determined that these three constructs are potentially important to persistence and/or withdrawal behavior (see Figure 1).

Tinto's theoretical framework is recognized by previous research (Fox, 1986; Pascarella & Chapman, 1983; Pascarella, Duby, & Iverson, 1983; Pascarella & Terenzini, 1980; Stoecker, Pascarella, & Wolfle, 1988). In addition, it provides a useful analysis of the process that brings individuals to leave institutions of higher education. Furthermore, Tinto's model is used because studies (Fox, 1986; Pascarella & Chapman, 1983; Pascarella, Duby, & Iverson, 1983; Pascarella & Terenzini, 1980, 1981; Stoecker, Pascarella, & Wolfle, 1988) acknowledged that the constructs of Tinto's model are useful for explaining student persistence/withdrawal behavior in different institutions of higher education.

Tinto's (1975) model of student persistence and withdrawal behavior has provided the theoretical

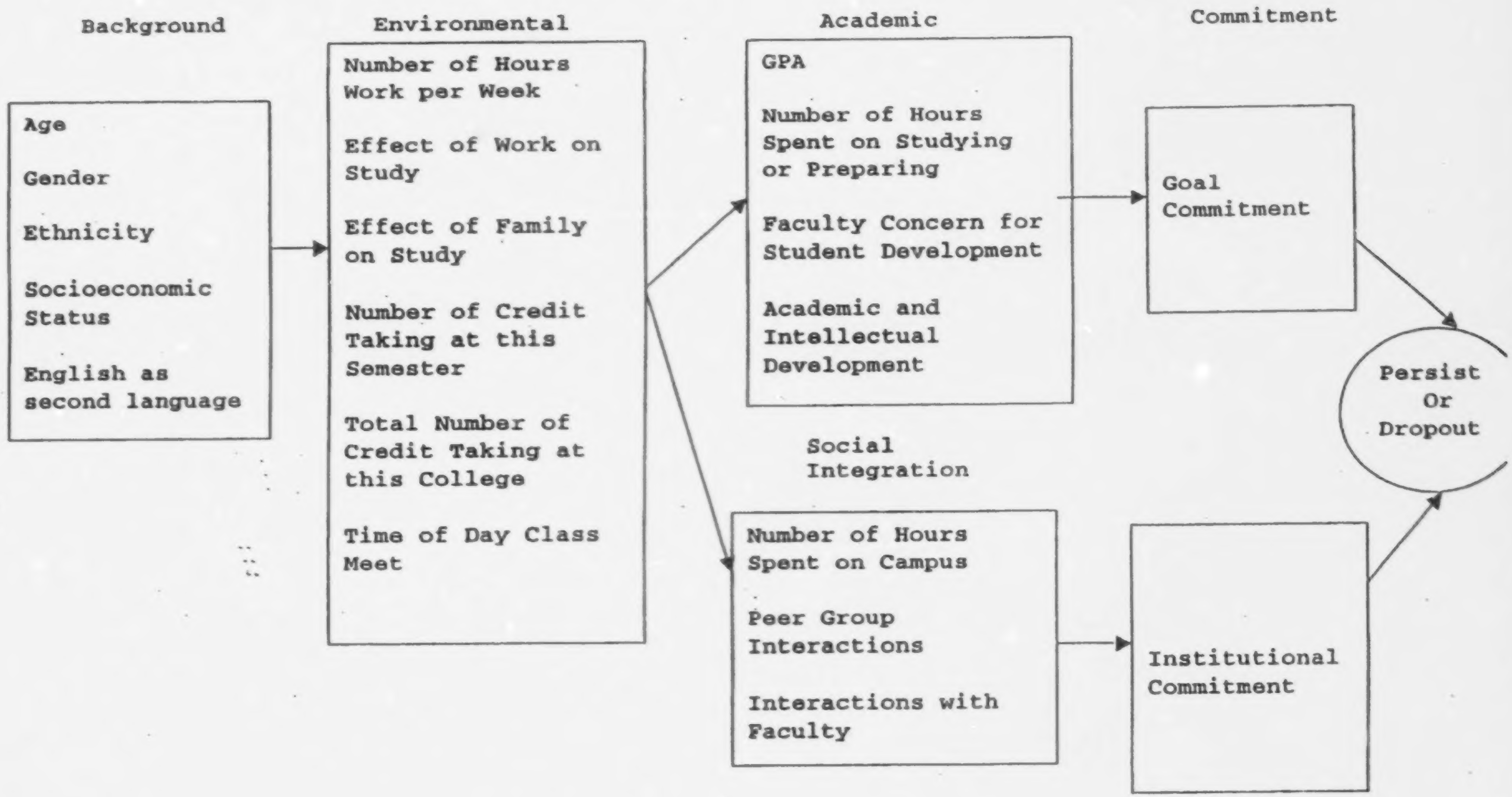
Background
Environmental
Academic
Commitment
Age
Gender
Ethnicity
Socioeconomic Status
English as second language
Number of Hours Work per Week
Effect of Work on Study
Effect of Family on Study
Number of Credit Taking at this Semester
Total Number of Credit Taking at this College
Time of Day Class Meet
GPA
Number of Hours Spent on Studying or Preparing
Faculty Concern for Student Development
Academic and Intellectual Development
Social Integration
Number of Hours Spent on Campus
Peer Group Interactions
Interactions with Faculty
Goal Commitment
Institutional Commitment
Persist Or Dropout

Figure 1. Tinto's Model of Student Persistence

framework for numerous persistence studies (e.g., Fox, 1986; Pascarella & Chapman, 1983; Pascarella, Duby, & Iverson, 1983; Pascarella & Terenzini, 1980; Stoecker, Pascarella, & Wolfle, 1988). The researchers conducted studies using Tinto's theory of persistence and withdrawal behavior in an attempt to better understand factors affecting students' persistence and withdrawal behavior and using findings regarding students' persistence and withdrawal behavior to affect college persistence to goal completion.

This study investigated factors affecting minority students' persistence in community colleges. The following variables listed in appendix B were examined:

Definition of Variables

Age (19 and under; 20-22; 23-27; 28-39; 40-55; 55 and over)

Gender (1 = male; 2 = female).

Ethnic status (American Indian; Asian; African American; and Hispanic)

Prior enrollment at the college

Number of credits hours completed at the college

Number of credits hours enrolled in for current semester

Family socioeconomic sum of parental income (7 categories, from less than $20,000 to 100,000 or more "status is defined as students' parental annual income, which, for the purpose of this study is subdivided into lower income range, lower middle income range, upper middle income range and upper income range categories. The lower income range category is less than $9,999; Lower middle income range is $10,000-$19,999; Upper middle income range is $20,000-$39,999; Upper income range is $40,000 and above.

Number of hours of employment (full/part-time)

Family responsibility

Integration Variables set consisting of the following:

Students' involvement as measured by the number of hours per week spent studying or preparing for class and hours spent on campus (defined as participation in a college approved organization).

Social integration is defined as the sum of scores on the peer group relation scale and the informal relationships with faculty scale.

Academic integration is defined as the sum of scores on academic and intellectual development scales and faculty concern for teaching and student development scale.

Commitment is defined as the score on the institutional and goal commitment scale.

Student demographics are defined as the sum of responses to: age, gender, ethnicity, work and family responsibility, campus association, and educational goal. Academic integration is defined as the sum of responses to the overall GPA, students' perceived level of intellectual development and students' perceived faculty concern for student development and teaching. Social integration is defined as the sum of students' coded responses to: (1) a seven item Likert-response scale assessing perceived level of students peer group interactions; and (2) a five item Likert-response scale assessing students' perceived interactions with faculty. Commitment is defined as the sum of students' coded responses to four items: (1) time of day classes meet; (2) number of hours worked per week; (3) the effect of work on study and (4) the effect of family on study. The outcome or dependent variables considered include: Persister (enrolled), or the intention to remain at the college.

The variables selected for this study reflect those utilized by Greenberg (1997). He used the demographic variables of age, gender, ethnicity, enrollment status (day/evening and full-time/part-time), family responsibilities, and employment status; Tinto's variables of goal and institutional commitment, social and academic integration, and additional variables that other research has suggested as predictive of student persistence/withdrawal decisions.

Setting, Population and Sample

Setting

This study was conducted at two of the four colleges within the Metropolitan Community College District of Kansas City, Missouri, which enrolls approximately 18,000 day and evening students. The district has an open door admissions policy, is nonresidential, provides quality, low-cost education, and offers credit and non-credit courses in over 70 career or transfer degree programs leading to Associate of Applied Science degree or Associate of Applied Arts degree, and diplomas and certificates in various programs of study.

The rationale for selecting these two colleges within the Metropolitan Community College District is that the researcher expected the sample to represent more accurately the community college students' population and these two have more diverse populations that could provide the samples needed for the study.

Population and Sample

The population for this study consisted of minority students enrolled in diploma and degree programs in the Fall semester of 1999, at two community colleges. The sample in this study were 232 students (165 females and 67 males). The sample included minority students from four ethnic groups (e.g., American Indian, Asian Pacific Island, African American, and Hispanic or Mexican American). The population consists of this group in an attempt to focus the study on minority students enrolled in community colleges. A differentiation was made between persisters and non-persisters, with persisters defined as persons who are taking classes on a part-time or full-time basis and only those students who were enrolled in Spring semester 1998, Summer semester 1998, Fall semester 1998 and Spring semester 1999. Non-persisters, were students who did not enroll in Spring semester 1998, Summer semester 1998 and had not re-enrolled in Fall semester 1998 and or Spring semester 1999.

Measures

The survey approach was used because it could identify factors affecting minority students' persistence in community colleges. In exploring the variables of social and academic integration across institutional types, Pascarella and

Terenzini (1980) developed an instrument titled Institutional Integration Scale (IIS), which provided data for the study (see appendix B). Terenzini, Lorang, and Pascarella (1981) later replicated the instrument to assess Tinto's constructs of academic and social integration and commitment. They then investigated whether academic and social integration (as measured by their scales) could differentiate persisters from nonpersisters, controlling for a variety of precollege traits, academic performance, and extracurricular involvement.

This study utilized the Institutional Integration Scale (Pascarella and Terenzini, 1980, 1981). The IIS is an instrument that assesses integration and commitment, the key constructs in Tinto's model (e.g, academic and social integration, goal and institutional commitment and intent to continue). The IIS consists of 30 items categorized into the following five scales: (1) peer-group interaction (7 items), (2) interactions with faculty (5 items), (3) faculty concerns for students development and teaching (5 items), (4) academic and intellectual development (7 items), and (5) Institutional and goal commitments (6 items). A copies of the Institutional Integration Scale instrument is appended to this study.

An earlier factor analysis (Pascarella and Terenzini, 1980) revealed that the constructs internal consistency and reliabilities for the five scale ranged from .71 to .84, and inter-correlations between the scales were very low, which eliminates the problem of multi-collinearity.

The instrument used in this study was divided into two sections: (1) descriptive data form developed by the researcher and (2) the Institutional Integration Scale.

Demographic Data Form

The demographic data form was used to determine differences in students' demographic characteristics and to describe the differences within and among the population and sample. The descriptive data form is a self-reporting instrument designed to collect information regarding students' demographics, such as age, gender, ethnicity, enrollment status, grade point average, family income, number of hours spent studying and reasons for attending a community college.

Institutional Integration Scale

The Institutional Integration Scale, is a self-reporting instrument designed to collect information related to persistence. The Institutional Integration Scale is a paper and pencil questionnaire consisting of items representing the conceptual model as those used in past research studies (Fox, 1986; Pascarella & Chapman, 1983; Pascarella, Duby, & Iverson, 1983; Pascarella & Terenzini, 1980; Stoecker, Pascarella, & Wolfle, 1988). A Likert scale of one (strongly disagree) to five (strongly agree) was used for the responses.

For this study, the choice of what to include in the methodology was partly informed by the goal of testing the Tinto's theoretical model of student persistence behavior (see Figure 1). Also, the researcher selected and included variables that past research determined were correlated, or related, to college persistence or withdrawal behavior and investigated factors relevant to the persistence and withdrawal of minority students in a community college setting. The survey instrument (questionnaire) appended to this study is designed to answer the research questions referred to previously in Chapter 1. The Survey Questionnaire contains selected items developed to gather information pertaining to and about the students' demographics, objectives in attending a two-year college, future educational plans, grade performance, interaction with peer group, future enrollment plans (intention to register for future terms), and several other student's characteristics that past research has shown to be related and applicable in the community college environment.

Each scale within the Survey Questionnaire is composed of a series of items on which students are asked to report their perception of certain academic and social factors, college factors, and their frequency of participation in college activities, by rating one or several items in each of these scales on 5-point Likert scales. For example, as an indication of their perception, students are asked to rate each of a list of items on a 5-point scale, ranging from strongly disagree to strongly agree.

Procedures

Data Collection

The data for this study were collected by a paper-and pencil survey instrument (Questionnaire) that was given during a regular 50 minute classroom period.

The researcher first contacted the Director of the Office of Research and Assessment, Metropolitan Community Colleges District of Kansas City, Missouri for approval. In order for the researcher to administer the instrument to students in their respective classrooms, permission was obviously needed from the instructors. The researcher then wrote a letter to each instructor outlining the purpose of the study and with an explanation of what was required of them.

Instructors agreeing to participate were asked to help distribute packets of questionnaires and to explain to their classes what this study entailed, and then they were asked to return the completed questionnaires. The group of students who agreed to participate constitute the sample for this study.

The researcher and the instructors arranged dates and times to administer the instrument. At each class session, the students were informed through a solicitation script about the purpose of the study. Each student received the SSQ and the instructor read to the students the directions for completing the questionnaire.

The students were given the opportunity to ask any questions about the survey they were asked to complete. Those who do not wish to participate were given the option to remain in class or leave for the duration of the survey.

Research packets were administered to all target populations selected for this study. The packets include: (1) student's consent script and assurances of confidentiality and (2) the two instruments. The students were informed that they could review the results of the study at key offices during Fall semester, 2000.

Pre Data Collection

The following steps were necessary to complete prior to the research process:

1. Obtain permission to use and reproduce the Institutional Integration Scale instrument from the author and copyright holder Ernest T. Pascarella, College of Education, University of Iowa, Iowa City, IA. 52242-1396. (see appendix-

D)

2. Obtain permission and support from the presidents of the two community colleges within the Metropolitan Community College District to conduct the study. (see appendix-D)

3. Obtain approval for the dissertation research proposal from the supervisory committee and School of Graduate Studies. (see appendix-D)

4. Obtain approval to conduct this study from the Social Sciences Institutional Review Board at the University of Missouri-Kansas City. (See appendix-D)

CHAPTER 4

ANALYSIS OF DATA

This chapter reports the statistical procedures used for the analysis of the data and then discusses the data analysis approach. To provide answers to research questions, a variable coding manual with operational definitions of each variable was designed (see appendix C) for all items on the survey questionnaire. The coding categories were developed by the researcher to aid in the organization of the data, scoring and data analysis.

The data were coded for scoring and manipulated by using the Statistical Package for the Social Sciences (SPSS), developed by Norusis (1994). The SPSS was originally designed for use by social scientists to analyze data from surveys. SPSS is particularly well-suited to survey research and can perform a variety of data analysis such as analysis of variance (ANOVA), factor analysis, and chi-square application.

The data were coded and entered into a database for scoring and tabulation by a computer. The statistical analysis was conducted using the Statistical Package for the Social Sciences (SPSS) software.

First, descriptive statistics were utilized to determine the sum frequency counts and percent, the mean, median, mode, range and standard deviation for each of the variables on the survey instrument. Frequency was determined by the responses to the data collection instrument, a Likert-type scale questionnaire designed to collect information regarding factors associated with college persistence and withdrawal behavior.

Descriptive statistics were utilized to determine the differences in the frequency of the student responses to the questionnaire items. The data were analyzed using frequency count and cross-tabulation in regard to demographic characteristics (e.g, age, gender, ethnicity, socioeconomic status, enrollment status, employment, and family responsibilities, class meeting times, amount of time spent studying and the number of hours per week spent on campus other than class time). In addition, cross-tabulations were generated to identify patterns of responses and relationships between and among variables on the Institutional Integration Scale survey instrument.

Secondly, chi-square was utilized to test for differences between categorized data. The chi-square test was used with the confidence level for this study set at P< .05. The statistical significance level was set at p<.05, and Chi-square results were reported, as well as the degrees of freedom. The Chi-square test of significance was utilized to test for statistical significance, which is useful for looking at relationships and differences between and among variables. Also, it is useful for measuring the strength of the relationship and differences between and among variables.

The Institutional Integration Scale responses were recoded from 5 responses (strongly agree, agree, not sure, disagree and strongly disagree) to 3 responses (agree, not sure, and disagree) by collapsing the strongly agree to agree and strongly disagree to disagree.

Third, correlation analysis was used to explore the relationships between two or more variables. In addition, inter-correlations among the variables and their means and standard deviation were determined. Cohen's (1988) criteria was used to determine the effect of size. If the relationship is perfectly positive, the correlation coefficient will be 1.00. If the relationship is perfectly negative, it will be -1.00. If there is no relationship, the coefficient will be zero.

Forth, the data were subjected to a factor analysis in order to determine if the data could be reduced to a smaller number of factors.

These methods were selected as appropriate for investigating the questions addressed in this study and because the interest in this study concerns multiple dependent and independent variables. However, it is understood that this interest constitutes only a partial test of the study. While, a .05 alpha level of significance was used, the results of the statistical analysis were considered significant at the $p<.01$ and at the $p<.05$ levels. The .05 level means, for example, that an obtained result that is significant at the .05 level could occur by chance only 5 times in 100 trials. It could happen more often or less often, but it probably will happen about 5 times in 100. The .01 level means that an obtained result could occur by only 1 time in 100 trials.

Results of the analysis of the data are presented in Chapter 5.

CHAPTER 5

RESULTS

The results, presented in this chapter, describe the factors affecting minority students' persistence in community colleges. Data are organized in tables, figures, and reports relating to the factors affecting the persistence.

The population of interest for this study consisted of minority students in two community colleges. Of the 625 questionnaires returned, 270 were minority students. Of the 270 questionnaires, 38 were eliminated because they were incomplete and unusable leaving 232 usable questionnaires. The 232 questionnaires comprised the sample giving an 86 percent response rate for usable questionnaires.

Due to the number of variables included in this study abbreviations were used instead of the complete variable names and corresponding abbreviations (see Table 1).

Table 1

Abbreviations and Variable Names

Abbreviation	Variable
AGE	age
GENDER	gender
ETHNIC	ethnicity

Table 1 (Continued)

Abbreviation	Variable
SES	socioeconomic status
ENGL	English as second language
HRWK	number of hours work per week
EWNSD	effect of work on study
EFMNSD	effect of family on study
NCDTT	number of credits taking this term
TNCDTC	total number of credits already taken at
TDCM	time of day class meets
GPA	what most grades have been
HRSPSD	how many hours spent studying or preparing for class
HRSPNC	how many hours spent on campus per week
RESFAD	reason for attending this college
DEGI	degree intention
PGI	peer group interaction
INWFAC	interactions with faculty
FACCSD	faculty concern for student development
ACIND	academic and intellectual development

INSGCOM institutional and goal commitments

Descriptive Statistics

Descriptive statistics on demographic characteristics of the students responses are shown in the tables presented here.

Respondents in this study varied from age 19 and under, to 55. The largest group of students were in the age category 20-22 and 28-39. The group surveyed is indicative of other groups of students found in community colleges. Table 2 shows the response rate by age: 19 and under, 40 (17 percent); 20-22, 57 (25 percent); 23-27, 36 (16 percent); 28-39, 59 (25 percent); and 40-55, 40 (17 percent).

Table 2

Frequencies and Percentages of Respondents by Age.

Value Label	Value	Frequency	Percent
19 and under	1	40	17.0
20-22	2	57	25.0
23-27	3	36	16.0
28-39	4	59	25.0
40-55	5	40	17.0
	Total	232	100.0

The majority of the students surveyed were female (71 percent) and male (29 percent). Table 3 shows response rate by gender: male, 67 (29 percent); and female, 165 (71 percent).

Table 3

Frequencies and Percentages of Students by Gender.

Value Label	Value	Frequency	Percent
Male	1	67	29.0
Female	2	165	71.0
	Total	232	100.0

Four ethnic groups were represented in this study. Table 4 shows the response rate by ethnicity: American Indian, 4 (2 percent); Asian Pacific Island, 19 (8 percent); African American, 182 (78 percent); and Hispanic or Mexican American, 27 (12 percent).

Table 4

Frequencies and Percentages of Respondents by Ethnicity.

Value Label	Value	Frequency	Percent
American Indian	1	4	2.0
Asian Pacific Island	2	19	8.0
African American	3	182	78.0
Hispanic or Mexican	4	27	12.0

Table 4 (Continued)

Total	232	100.0

Seventy-one percent of the respondents family income was $40,000 or less. The frequencies and percent response rate by socioeconomic status follows: $20,000 and under, 87 (38 percent); $20,000 - 40,000, 80 (35 percent); $40,000 - 60,000, 22 (10 percent); $60,000 - 80,000, 8 (3 percent); $80,000 - 100,000, 2 (1 percent); and unknown family socioeconomic status, 32 (14 percent). The majority of the students 200 (86 percent) indicated that English was their first language, while 32 (14 percent) indicated English as second language.

In response to the question regarding hours per week worked by students. Table 5, shows frequencies and percentage of respondents as follows: no work, 29 (13 percent); 1 - 10 hours, 21 (9 percent); 11 - 20 hours, 41 (18 percent); 21 - 30 hours, 27 (12 percent); 31 - 40 hours, 67 (29 percent); and 40 and over, 47 (20 percent).

Table 5

Frequencies and Percentages of Respondents by Hours per Week Worked.

Value Label	Value	Frequency	Percent

Table 5 (Continued)

0 and no work	1	29	12.4
1-10	2	21	9.1
11-20	3	41	17.7
21-30	4	27	11.6
31-40	5	67	28.9
40 and over	6	47	20.3
	Total	232	100.0

Table 6 shows the frequencies and percentages to the response rate by effect of work on study: no job, 33 (14 percent); job does not interfere, 66 (28 percent); job takes some time, 92 (40 percent); and job takes a lots of time, 41 (18 percent).

Table 7 shows the response rate by effect of family responsibilities on study as: no family responsibilities, 69 (30 percent); family responsibilities do not interfere, 46 (20 percent); family responsibilities take sometimes, 86 (37 percent); and family responsibilities take lots of time, 31 (13 percent).

Table 6

Frequencies and Percentages of Respondents by Effect of work on study.

Table 6 (Continued)

Value Label	Value	Frequency	Percent
no job	1	33	14.2
job does not interfere	2	66	28.4
job takes some time	3	92	39.7
job takes a lot of time	4	41	17.7
	Total	232	100.0

Table 7

Frequencies and Percentages of Respondents by Effect of Family Responsibilities on College Work.

Value Label	Value	Frequency	Percent
no family	1	69	29.7
family does not interfere	2	46	19.8
family takes some time	3	86	37.1
family takes lot of time	4	31	13.4
	Total	232	100.0

Respondents by campus, the urban community college had the highest percentage of minority students (93 percent) and suburban community college had the lowest (7 percent). Students response rate by campus follows: Longview, 16 (17 percent); Penn Valley, 216 (93 percent).

The following is in response to the questions regarding student enrollment status. Students were classified as either full-time (12 or more credit hours) or part-time (less than 12 credit hours). In addition, students were asked to report total number of credit hours earned at the college.

Tables 8 and 9 show frequencies and percentages of responses to the question regarding how many credits students were taking this term and what is the total number of credit hours already taken at this college. Table 8 represents the response rate of number of credits taking this term: 6 Credits and under, 37 (16 percent); 6-8 credits, 53 (23 percent); 9-11 credits, 50 (21 percent); 12-15 credits, 81 (35 percent); and 15 and over, 11 (5 percent).

Table 9 represents the response rate by total number of credits already taken at this college: 1-15 credits, 89 (38 percent); 16-30 credits, 48 (21 percent); 31-45 credits, 29 (13 percent); and 46 and over, 66 (28 percent).

Table 8

Frequencies and Percentages of Respondents by Number of Credits Taking this Semester.

Value Label	Value	Frequency	Percent

Table 8 (Continued)

01-06	1	37	15.9
06-08	2	53	22.8
09-11	3	50	21.6
12-15	4	81	34.9
over 15	5	11	4.7
	Total	232	100.0

Table 9

Frequencies and Percentages of Respondents by Total Number of Credits Earned At the College.

Value Label	Value	Frequency	Percent
01-15	1	89	38.4
16-30	2	48	20.7
31-45	3	29	12.5
46-more	4	66	28.4
	Total	232	100.0

Respondents reported their attendance pattern. They reported the time of day their classes meet. Table 10 shows the response rate by time of day classes meet: Daytime, 105 (45 percent); Nighttime, 76 (33 percent); Both daytime and nighttime, 51 (22 percent).

Table 10

Frequencies and Percentages of Respondents by Time of Day Class Meet.

Value Label	Value	Frequency	Percent
day time	1	105	45.3
night time	2	76	32.8
both	3	51	22.0
		-------	-----
	Total	232	100.0

In response to the question regarding GPA (up to now), what have most of your grades been at this college? Table 11 shows the response rate by grades: A, 19 (8 percent); A- B+, 75 (32 percent); B, 35 (15 percent); B- C+, 59 (25 percent); C C-, 15 (7 percent); Lower than C, 4 (2 percent); and No grades, this is my first term, 25 (11 percent)

Table 11

Frequencies and Percentages of Respondents by GPA What Most Grades Have Been at This College.

Value Label	Value	Frequency	Percent
A	1	19	8.2
A- B+	2	75	32.3

Table 11 (Continued)

B	3	35	15.1
B- C+	4	59	25.4
C C-	5	15	6.5
lower than C-	6	4	1.7
none	7	25	10.8
	Total	232	100.0

Students reported that they spent varying amounts of time per week studying or preparing for classes. The amount of time varied from 1 hour to 20 or more hours. Table 12 shows frequencies and percentages as: 6 or less, 118 (51 percent); 6-10, 63 (27 percent); 11-15, 31 (13 percent); 16-20, 9 (4 percent); and 20 and over, 11 (5 percent).

Table 12

Frequencies and Percentages of Respondents by Time Spent Per Week Studying for Classes.

Value Label	Value	Frequency	Percent
01-06	1	118	50.8
06-10	2	63	27.2
11-15	3	31	13.4
16-20	4	9	3.9

Table 12 (Continued)

over 20	5	11	4.7
	Total	232	100.0

Students reported that they spent varying amounts of time per week on campus, not counting time spent attending classes. The amount of time varied from 1 hour to 12 or more hours. Table 13 shows frequencies and percentages as: 0 hours, 55 (24 percent); 1-3, 91 (39 percent); 4-6, 49 (21 percent); 7-9, 16 (7 percent); 10-12, 10 (4 percent); and more than 12 hours, 11 (5 percent).

Table 13

Frequencies and Percentages of Respondents by Time Spent Per Week on Campus.

Value Label	Value	Frequency	Percent
none	1	55	23.7
01-03	2	91	39.3
04-06	3	49	21.1
07-09	4	16	6.9
10-12	5	10	4.3
over 12	6	11	4.7
	Total	232	100.0

Almost two-thirds of the student (64%) respondents indicated that the most important reason they were attending this college at the present time was to prepare for transfer to a four-year college or university. Twenty percent of the respondents indicated that the most important reason they were attending this college was to gain skills necessary to enter a new job or occupation. Fourteen percent of the respondents indicated that the most important reason they were attending this college was to gain skills necessary to remain current or advance in a current job or occupation. In addition, two percent of the respondents indicated that the most important reason they were attending this college at the present time was to satisfy a personal interest.

Table 14

Frequencies and Percentages of Respondents Most Important Reason for Attending this College.

Value Label	Value	Frequency	Percent
Prepare for Transfer to a four-year college or university	1	149	64.2
Gain skills to enter a new job or occupation	2	46	19.8
Gain skills to remain current or advance in a			

Table 14 (Continued)

current job or occupation	3	32	13.8
Satisfy a personal interest (cultural, social)	4	4	1.7
Improve English or math skills	5	1	.5
	Total	232	100.0

Additional Data

Four items specifically addressed issues of student goal commitment. Respondents were asked to answer yes or no to four questions. Of the 232 respondents:

Item 1: Are you working for an AA or AS degree, 178 (77 percent) indicated yes and 54 (23 percent) said no.

Item 2, Are you working for a Diploma or Certificate, 108 (47 percent) indicated yes and 124 (53 percent) said no.

Item 3, Are you planning to transfer to a four year college, 176 (76 percent) indicated yes and 56 (24 percent) indicated no.

Other item responses on the survey questionnaire, were five categories which specifically addressed issues of students' integration, (e.g., academic and social integration, institutional and goal commitment). The items were scored on a five point scale: 5= strongly agree, 4= agree, 3= not sure, 2= disagree and 1= strongly disagree.

Research Questions

Research Question One

What factors affect minority students' persistence in community colleges?

To answer this research question, student responses were examined and factor analyses are presented in tabular form. The means and standard deviations for the sample population are reported in Tables 15, 16, 17, 18, 19, and 20. As the tables indicate the results of the factor analysis show that significant differences were found in the survey responses regarding demographic factors, environmental factors, academic and social integration factors, and institutional and goal commitment factors. Ranking of factors are given in Table 15, 16, 17, 18, 19, and 20, where 30 of 51 factors had means of 3.0 or greater and were considered to be very significant factors. Eight factors had means that were 2.0 or greater, but less than 3.0, and were considered to be significant.

Table 15

List of Means and Standard Deviations of Demographic Factors Affecting Minority Students' Persistence.

Factors	Mean	Std Dev
AGE	3.18593	1.33734
GENDER	1.70854	.45558
ETHNIC	3.01508	.49724
SES	1.79899	.91552
ENGL	1.11558	.32052

Table 16

List of Means and Standard Deviations of Environmental Factors Affecting Minority Students' Persistence.

Factors	Mean	Std Dev
HRWK	4.05528	1.64898
EWNSD	2.63819	.92099
EFMNSD	2.44724	1.04252
NCDTT	2.82412	1.16957
TNCDTC	2.35176	1.25806
TDCM	1.77889	.77287
CAMASS	2.87437	.48126

Table 16 (Continued)

HRSPSD	1.79397	1.04096
HRSPNC	2.39698	1.22606

Table 17

List of Means and Standard Deviations of Goal Commitment Factors Affecting Minority Students' Persistence.

Factors	Mean	Std Dev
RESFAD	1.57789	.85441
DEGI1	1.24121	.46287
DEGI2	1.53266	.50019
DEGI3	1.24623	.43190
DEGI4	1.91960	.27260
DEGI5	1.97990	.14070

Table 18

List of Means and Standard Deviations of Social Integration Factors Affecting Minority Students' Persistence.

Factors	Mean	Std Dev
PGI1	3.30151	.85844
PGI2	3.46734	.77700
PGI3	3.37688	.80004
PGI4	3.35678	.82164
PGI5	2.47236	.77719
PGI6	3.20603	.78029
PGI7	3.19598	.80201
INWFAC1	3.25126	.78957
INWFAC2	3.23116	.80204
INWFAC3	3.23116	.78292
INWFAC4	3.07035	.91291
INWFAC5	3.39698	.78379

Table 19

List of Means and Standard Deviations of Academic Integration Factors Affecting Minority Students' Persistence.

Factors	Mean	Std Dev
GPA	3.33166	1.61763
FACCSD1	3.62814	.66089
FACCSD2	2.52261	.76425
FACCSD3	3.49749	.71686
FACCSD4	3.49246	.71682
FACCSD5	3.62312	.62253
ACIND1	3.69347	.57867
ACIND2	3.70854	.57338
ACIND3	3.70352	.60096
ACIND4	3.68844	.63835
ACIND5	3.70352	.58391
ACIND6	3.12563	.85829
ACIND7	3.46231	.74355

Table 20

List of Means and Standard Deviations of Institutional and Goal Commitment Factors Affecting Minority Students' Persistence.

Factors	Mean	Std Dev
INSGCOM1	3.91960	.35329
INSGCOM2	3.82915	.46161
INSGCOM3	3.28643	.88384
INSGCOM4	3.62814	.71238
INSGCOM5	3.86432	.45691
INSGCOM6	3.83417	.50014

Research Question Two

To what extent do the demographic and environmental factors of age, gender, ethnicity, socioeconomic status, enrollment status, employment, and family responsibilities, class meeting times, amount of time spent studying, and number of hours per week spent on campus, other than class time, affect minority students' persistence?

To answer this research question, the Chi-square test of significance was used to determine if there were significant differences between the two variables of demographic and environmental factors. Chi-square is a test of statistical significance and it assists the researcher in determing whether or not a systematic relationship exists between two variables. This is determined by computing the cell frequencies which would be expected if no relationship is present between the variables. The expected cell frequencies are then compared to the actual values. Finally, Chi-square statistical significance was reported for Chi-square computations, where p<.05.

The Chi-square analysis indicated significant differences in terms of demographic and environmental variables. Results of Chi-square analysis showed that the number of hours worked per week by gender was statistically significant (p<.047). The number of hours worked per week by age was statistically significant (p<.001). Statistical significance was also found in the effect of work on study by gender (p<.31). Results of Chi-square analysis showed that the effect of family responsibility on study by gender was statistically significant (p<.036). In addition, statistical significant was found in the effect of family responsibility on study by ethnicity (p<.402). Results of Chi-square analysis showed that the effect of family responsibility on study by age was also statistically significant (p<.000).

The results of Chi-square analysis showed that the number of credit hours taking this term by gender was statistically significant (p<.409). Statistical significance was found in the number of credit hours taken this term by ethnicity (p<.198) and results of Chi-square analysis showed that the number of credit hours taken this term by age was statistically significant (p<.000). The total number of credit hours already taken at the college by age was statistically significant (p<.111), while the time of day class meeting by ethnicity was statistically significant (p<.025).

The results of Chi-square analysis showed that the time of day class meeting by age was statistically significant (p<.001). Results of Chi-square analysis showed that the number of hours spent studying or preparing for classes by ethnicity was statistically significant (p<.272) and results of Chi-square analysis showed that the number of hours spent on campus per week by gender was statistically significant (p<.172). Results of Chi-square analysis showed that the number of hours spent on campus by ethnicity was statistically significant (p<.003). Results of Chi-square analysis showed that the number of hours spent on campus per week by age was statistically significant (p<.262).

The results of Chi-square analysis showed that the reason students gave for attending this college by ethnicity was statistically significant (p<.000) and the analysis showed that the reason students gave for attending this college by age was statistically significant (p<.006).

Research Question Three

To what extent do the variables of academic and social integration and institutional and goal commitment affect minority students' persistence?

To answer this research question, the Chi-square test of significance was used to determine if there were significant differences in academic and social integration factors.

Chi-square analysis indicated statistically significant difference in terms of academic integration and social integration variables and results of Chi-square analysis showed that Grade Point Average (GPA) by gender was statistically significant (p<.184). The results of Chi-square analysis showed that Grade Point Average (GPA) by ethnicity was statistically significant (p<.233) and analysis showed that Grade Point Average (GPA) by age was statistically significant (p<.014).

Results of Chi-square analysis showed significant differences in peer group interaction by gender was statistically significant (p<.047), significant differences in peer group interactions by ethnicity was statistically significant (p<.001), significant differences were found in student interactions with faculty by gender (p<.238), significant differences in student interactions with faculty by ethnicity (p<.340), and there were statistically significant differences in student interactions with faculty by age (p<.250).

Chi-square analysis showed faculty concern for student development by gender was statistically significant (p<.143), faculty concern for student development by ethnicity was statistically significant (p<.013) and faculty concern for student development by age was statistically significant (p<.047).

The results of Chi-square analysis showed academic and intellectual development by gender was statistically significant (p<.128), and institutional and goal commitment by gender was statistically significant (p<.201) and Chi-square analysis showed institutional and goal commitment by ethnicity was statistically significant (p<.462).

Research Question Four

Determine whether there are significant differences between specific student subgroups, gender and ethnicity?

To answer this research question, correlation analysis was used to identify factors that were statistically significant between two or more factors. Table 21 shows the results of correlation performed on factors that were significantly correlated when demographic factors of gender and ethnicity were used for comparison.

Table 21

Correlation Coefficient of Factors by Gender and Ethnic.

	GENDER	ETHNIC
AGE	.1061	-.0730
SES	-.0201	-.0395
ENGL	-.0602	-.1968**
HRWK	-.0263	-.0552
NCDTT	-.0186	.0918
TNCDTC	.0735	-.0670
TDCM	-.0139	-.0954
CAMASS	.1538*	.0863
GPA	-.0763	-.0392
HRSPSD	.0324	-.0685
HRSPNC	-.1063	-.0514
RESFAD	.1045	.0304
PGI	-.0041	-.0111
INWFAC	.0675	-.0365
FACCSD	.0468	-.1075
ACIND	.1384*	-.0733
EWNSD	-.0866	-.0623
INSGCOM	.1750**	.0478
CAMASS	.1538*	.0863

Table 21 (Continued)

Correlation Coefficient of Factors by Gender and Ethnic.

DEGI	.0110	-.0384
EFMNSD	.1828**	.0240

* - Signif. LE .05 ** - Signif. LE .01

Research Question Five

What are the differences if any, between the two colleges within the Metropolitan Community College system?

To answer the research question, responses by campus were examined. By campus, Penn Valley Community College had the highest percentage of minority students, 216 (93 percent) while Longview Community College had 16 minority students (7 percent). In comparison, the proportion of minority students at Penn Valley far exceeds the number of minority students at Longview College. As a result, any unique differences between the two colleges cannot be further identified as the case, in this study.

Summary

The results of the 5 research questions were analyzed and reported in this chapter. Following is a brief summary of results for each research question.

Research question one results indicated there were significant differences in a number of factors. Research question two results indicated that the demographic and environmental variables (e.g, the number of hours worked per week, the effect of hours worked per week on studying, the effect of family responsibility on studying, amount of hours spent studying, amount of time spent on campus, the time of day class meeting) were significant either by age, gender and ethnicity. Research question three results indicated that the academic and social integration, and institutional and goal commitment factors were statistically significant by age, gender, and ethnicity. Research question four results showed there were significant differences in a number of factors. For example, statistically significant differences were found between academic and intellectual development and gender.

Research question five results showed there were significant differences in a number of responses. Significant difference was found because the proportion of respondents from one campus far exceeds the other campus. As a results, no unique differences could be established.

CHAPTER 6

DISCUSSIONS, IMPLICATIONS AND RECOMMENDATIONS

This chapter presents the discussions, implications and recommendations of this study. From the literature, it is clear that minority students' persistence in community colleges is a problem and it is apparent that there is a need to investigate factors affecting the persistence.

The areas of literature reviewed represent relevant theory and research that attempt to explain minority students' persistence in community colleges. Although research has been conducted on the subject of persistence among two-year and four-year college students, there are many factors that affect students' persistence in colleges and there is a great need to explore the factors affecting minority students' persistence in community colleges. Tinto's (1975, 1987, 1993) model has been primarily applied to research in two-and-four year colleges. However, research concerning minority students' persistence has been conducted in the community college setting. This study investigated factors affecting minority students' persistence in community colleges.

The subjects for this study were students enrolled in certificate and degree programs in two Metropolitan Community

Colleges. The survey was conducted during classroom instruction. The survey instrument was developed by Pascarella & Chapman (1983), and the Institution Integration Scale was designed to measure social and academic integration of students in both two and four year institutions. A theoretical framework was used to study factors affecting minority students' persistence in community colleges. The results were analyzed utilizing the University of Missouri-Kansas City computing services, including the Statistical Package for the Social Sciences (SPSS).

The descriptive statistics provided the frequency of the responses. Student characteristics were analyzed utilizing Chi-square analysis. These characteristics were: age, gender, ethnicity, employment, family responsibilities, family income, student enrollment, number of credits taken already taken at the college, time of day classes meet, GPA, time spent preparing for classes, number of hour spent on campus, reason for attending this college, academic and social integration, institutional and goal commitment.

From an aggregate perspective, minority students' persistence in two-year community colleges were influenced by a number of factors in their decision to remain or persist. An important finding of this study is that community college students are not different from their four-year college counterparts. As observed from the finding of this study, many students are working full-time jobs, and have family responsibilities. The findings indicated that females persisted at a higher rate than males and there was a significant association between purpose and persistence or the intent to return and those findings also support the assumption that employment, and family responsibility are factors associated with the students' decisions to persist. Overall, the factors receiving the greatest weight were those related to environmental factors (e.g., employment and family responsibility).

Academic integration had a stronger influence on the persistence of females and both social integration and goal commitment had a stronger influence on the persistence of men.

In sum, results of this study contribute to the understanding of the factors which influence student decisions to persist or withdraw from community colleges. The findings from this study provide information for the institution to develop strategies, so that they can retain more minority students. The findings from this study provide implications that suggest action by the institution could enhance student persistence. Also, administrators must continue to seek ways to meet the student's needs in an effort to maintain their enrollment.

As noted earlier, appropriate minority student representation within the colleges is often a concern of college administrators and faculty. Thus, knowing what positively influences minority students' persistence in community colleges can help administrators in their recruitment efforts. The data also suggests that some factors are considered more important for ethnic sub groups.

This study utilized a large sample, with a high return rate of responses, so that, the results of this study may be generalized to community colleges in Metropolitan Areas. Also, because this population was representative of current and prospective students of the community colleges within the Metropolitan Community College District of Kansas City, Missouri the researcher feels that the findings can be generalized to the other community colleges within the District.

In relationship to other studies, the findings were consistent with previous research, in that the factors affecting minority students' persistence in community colleges has implications for the institutions. The implication of significant research finding to Penn Valley Community College and Longview Community College is that they ought to pay attention to these groups of students because the students who works forty or more hours seemed to dropout more than those who work twenty hours or less. If colleges are planning on retaining these groups of students they have to look at this issue and find appropriate responses.

This study provides information concerning factors influencing minority students' persistence in the community college setting, or an extension of the knowledge base of student persistence theory. While many variables in this study are not significant, they can still provide institutions with information to implement intervention programs that could increase minority students' persistence. This information is important to the institutions since students' potential to complete their goals is dependent on their persistence.

Student persistence, as explained by the Tinto Model (1975, 1987, 1993), provides institutions with a guide by which to implement actions to aid in the persistence of students. Findings from this study provide some implications that may suggest action by the institution that will enhance student persistence. Continued research on the phenomenon of student persistence/withdrawal is needed in the community colleges. Reasons why minority students withdraw continues to perplex educators and the lack of research make it difficult to develop retention plans that can address issues affecting students' persistence. Administrators continue to seek methods to meet the students' needs in an effort to maintain their enrollment in the institution. These additional intervention strategies need to be designed in an effort to assist students in overcoming the barriers to successful participation in, and, ultimately, completion of their program of study.

Understanding the factors influencing minority students persistence in community colleges is of increasing importance to college administrators, given the under-representation of minority students in higher education and the related pressure to increase their enrollment. While, it is hoped that this study took a fundamental step toward that understanding, there still is much more that can be done. As a result, the following are recommendations for future research.

First, continued research in the area of students' persistence is needed to identify student needs so that programs and services can be established to assist students to meet their academic goals and, thereby, enabling institutions to increase their retention rates.

Second, future research with minority student bodies may lend more insight into student persistence/continuation in college. If these are identified, it would provide a base to develop intervention strategies even before students enroll.

Third, replication this study, while increasing the number of minority students from other racial groups, (e.g., Native Americans, Asian Americans, Hispanics or Mexican

Americans) could provide information for strategies for retaining these minority groups.

Fourth, future studies conducted over a longer period of time may provide additional insight into the student persistence theory.

Fifth, a longitudinal study with a focus on retention of all students is needed. Understanding factors that influence students' persistence in community colleges is of increasing importance to both students and institutions.

APPENDIX A

RESEARCH SCRIPTS AND CONSENT FORM

Student's Consent Script at Data Collection

FACTORS AFFECTING MINORITY STUDENT'S PERSISTENCE IN COMMUNITY COLLEGES

Thank you for participating in this dissertation research study investigating factors affecting minority students' persistence and withdrawal behavior in community college setting. The purpose of this study is to identify factors affecting minority students persistence and withdrawal behavior in a community college setting.

The results of this study could provide valuable information to faculty and administrators in teaching and advising students; in addition, the results may aid students, faculty, and administrators in understanding factors influencing minority students' persistence and withdrawal behavior, and thus explain the lack of persistence and withdrawal among minority students in community colleges. The results of this study could be useful for administrators to designed program and support services to improve minority students' persistence behavior on college setting.

I will distribute all instruments to be completed in a packet. These are the demographic data form and the Institutional Integration Scale. Participants are asked to complete two instruments contained in a packet. Please follow the instructions and complete the instruments as indicated. It will take about 10-20 minutes to complete the instruments. The results of overall data will be provided to faculty and administrators.

There are no foreseeable risks involved in participating in this study. There exists no direct benefit to those participating, other than the opportunity to participate in the study. Participation or non-participation in the study will not affect a student's grade, course requirement. Participation is strictly voluntary. You may withdraw from participation in the study at any time.

The complete instruments submitted to the researcher will serve as your permission to participate in this study. Participants are asked to complete their instrument packets in anonymity. The researcher does not need to know subjects' identities for matching responses. Confidentiality of participants' responses is ensured.

Thank you for participating in this research study.

Falilu-Mohammad Matti, Ed.S., MS., BS.,
Researcher Doctoral student at the University of Missouri-Kansas City

APPENDIX B

SURVEY QUESTIONNAIRE

STUDENT DEMOGRAPHIC QUESTIONNAIRE (SDQ).

Directions: Indicate your responses by filling in the appropriate space under each questions.

BACKGROUND, WORK, FAMILY

Age

○ 19 or younger
○ 20-22
○ 23-27
○ 28-39
○ 40-55
○ Over 55

Gender
○ Male
○ Female

What is your racial or ethnic identification?
○ American Indian
○ Asian or Pacific Islander
○ Black African-American
○ Hispanic Latino
○ White
○ Other ____________

Is English your native language
○ Yes
○ No

During the time college is in session, about how many hours per week do you usually spend working on a job for pay?
○ None; I don't have a job
○ 1-10 hours
○ 11-20 hours
○ 21-30 hours
○ 31-40 hours
○ more than 40 hours

COLLEGE PROGRAM

How many credits are you taking THIS term?
○ Fewer than 6
○ 6 to 8
○ 9 to 11
○ 12 to 15
○ More than 15

Including the credits you are now taking, what is the total number of course credits you have taken at this college?
○ 1-15 credits
○ 16-30 credits
○ 31-45 Credits
○ 46 or more credits

When do the classes you are taking meet?
○ day only
○ evening only
○ some day and some evening

Up to now, what have most of your grades been at this college?
○ A
○ A- B-
○ B
○ B- C-
○ C, C-
○ lower than C-
○ No grades; this is my first term

SURVEY QUESTIONNAIRE

The main purpose of asking you to complete this questionnaire is to learn more about how you think and feel about your experience and plans at this college. The information obtained from you and from other students will help administrators and faculty members provide programs which will benefit student learning and development within the college experience.

This questionnaire requires about 10-20 minutes to complete. You will find when you have finished it, that your answers provide a kind of self-portrait of what you have been giving and getting in your college experience.

The ultimate benefit from this or any other survey depends on the thoughtful responses and willing participation of those who are asked to help. Your willingness to participate is important and very much appreciated. Thank you very much for your cooperation.

SPECIFIC INSTRUCTIONS

Please use a ball pen or lead pencil and mark your answers clearly in the spaces provided. Please mark only one answer for each question and erase cleanly any response you wish to change.

You do not need to write your name on the questionnaire, your individual answers are completely confidential.

Again, you do not need to give your name but it is very important that you indicate your age, your sex, your race or ethnicity, and your present grades at this college.

BACKGROUND, WORK, FAMILY

If you have a job, how does it affect your college work?

- ○ I don't have a job
- ○ my job does not interfere with my school work
- ○ my job takes some time from my school work
- ○ my job takes a lot of time from my school work

If you have family responsibilities, how does this affect your college work?

- ○ I don't have family responsibilities
- ○ those responsibilities do not interfere with my school work
- ○ those responsibilities take some time from my school work
- ○ those responsibilities take a lot of time from my school work

Family Income

- ○ Under $20,000
- ○ 20,000 to 40,000
- ○ 40,001 to 60,000
- ○ 60,001 to 80,000
- ○ 80,001 to 100,000
- ○ Over 100,000
- ○ Unknown

To which college do you belong (Check one)

- ○ Longview
- ○ Maple Woods
- ○ Penn Valley
- ○ Blue River

COLLEGE PROGRAM

About how many hours a week do you usually spend studying or preparing for your classes?

- ○ 1 to 6 hours
- ○ 6 to 10 hours
- ○ 11 to 15 hours
- ○ 16 to 20 hours
- ○ more than 20 hours

About how many hours a week do you usually spend on the college campus, not counting time attending classes?

- ○ none
- ○ 1 to 3 hours
- ○ 4 to 6 hours
- ○ 7 to 9 hours
- ○ 10 to 12 hours
- ○ more than 12 hours

What is the most important reason you are attending THIS COLLEGE at this time? (Mark ONLY ONE answer)

- ○ To prepare for transfer to a four-year college or university.
- ○ To gain skills necessary to enter a new job or occupation
- ○ To gain skills necessary to remain current or advance in a current job or occupation
- ○ To satisfy a personal interest (cultural, social)
- ○ To improve my English, reasoning or math skills.

BACKGROUND, WORK, FAMILY

COLLEGE PROGRAM

DIRECTIONS: Answer each of the following questions

	Yes	No
Are you working for an AA or AS degree?	○	○
Are you working for a diploma or certificate	○	○
Do you plan to transfer to a four year college or university?	○	○
Are you currently enrolled in an occupational/ vocational program?	○	○
Other occupational/vocational programs not listed above	○	○

INSTITUTIONAL INTEGRATION SCALES (IIS).

5 means: Strongly Agree
4 means: Agree
3 means: Not sure
2 means: Disagree
1 means: Strongly Disagree

Use the following key above to mark your answers by indicating how strongly you agree or disagree with:

Scale I: Peer Group Interactions

Since coming to this college I have developed close personal relationships with other students.	5	4	3	2	1
The student friendships I have developed at this university have been personally satisfying.	5	4	3	2	1
My personal relationships with other students have had a positive influence on my personal growth, attitudes, and values.	5	4	3	2	1
My personal relationships with other students have had a positive influence on my intellectual growth and interest in ideas.	5	4	3	2	1
It has been difficult for me to meet and make friends with other students.	5	4	3	2	1
Many of the students I know would be willing to listen to me and help me if I had a personal problem.	5	4	3	2	1
Most students at this college have values and attitudes different from my own.	5	4	3	2	1

Adapted From Terenzini, Lorang and Pascarella (1981) the Institutional Integration Scale (IIS).

Scale II: Interactions with Faculty

My nonclassroom contacts with faculty have had a positive influence on my personal growth, values, and attitudes.	5	4	3	2	1
My nonclassroom contacts with the faculty have had a positive influence on my intellectual growth and interest in ideas.	5	4	3	2	1
My nonclassroom contacts with faculty have had a positive influence on my career goals and aspirations.	5	4	3	2	1
Since coming to this college I have developed a close, personal relationship with at least one faculty member.	5	4	3	2	1
I am satisfied with the opportunities to meet informally with faculty members.	5	4	3	2	1

Scale III: Faculty Concern for Student Development and Teaching

The faculty members I have had contact with are generally interested in students.	5	4	3	2	1
The faculty members I have had contact with are generally not caring or superior teachers.	5	4	3	2	1
The faculty members I have had contact with are willing to spend time outside class to discuss issues of interest and importance to students.	5	4	3	2	1
Most of the faculty I have had contact with are interested in helping students grow in more than just academic areas.	5	4	3	2	1
Most faculty members I have had contact with are genuinely interested in teaching.	5	4	3	2	1

Scale IV: Academic and Intellectual Development

I am satisfied with the extent of my intellectual development since enrolling at this college.	5	4	3	2	1
My academic experience has had a positive influence on my intellectual growth and interest in ideas.	5	4	3	2	1
I am satisfied with my academic experience at this college.	5	4	3	2	1
My courses this year have been intellectually stimulating.	5	4	3	2	1
My interest in ideas and intellectual matters has increased since coming to this college.	5	4	3	2	1
I am more likely to attend a cultural event (for example, a concert, lecture, or art show) now than I was before coming to this college.	5	4	3	2	1
I have performed academically as well as I anticipated I would.	5	4	3	2	1

Scale V: Institutional and Goal Commitments

It is important for me to graduate from college.	5	4	3	2	1
I am confident that I made the right decision in choosing to attend this college.	5	4	3	2	1
It is likely that I will register at this college one year from today.	5	4	3	2	1
It is important for me to graduate from this college.	5	4	3	2	1
My college education will be highly usefull in getting future employment.	5	4	3	2	1

My college education will be useful in getting a really good job.	5	4	3	2	1

Note Items scored 5=strongly agree to 1=strongly disagree.
Additional Comment: please use this space to make additional comments and suggestions as you like (what do you think should be done).

APPENDIX C

DATA CODING MANUAL

STUDENT DATA CODING MANUAL

```
Student Data list file=6 notable.

/1 ID 1-4 AGE 5-6 GENDER 7 ETHNIC 8 SES 9 ENGL 10 HRWK 11-12
    EWNSD 13 EFMNSD 14 NCDTT 15-16 TNCDTC 17-18 TDCM 19 GPA
    20 HRSPSD 21-22 HRSPNC 23-24 RESFAD 25 DEGIN 26
/2 PGI1 to PGI7 1-7
/3 INWFAC1 to INWFAC5 8-12
/4 FACCSD1 to FACCSD5 13-17
/5 ACIND1 to ACIND7 18-24
/6 INSGCOM1 to INSGCOM6 25-30

VARIABLE LABELS
    AGE 'age'
    GENDER 'gender'
    ETHNIC 'ethnicity'
    SES 'socioeconomic status'
    ENGL 'English as second language'
    HRWK 'number of hours work per week'
    EWNSD 'effect of work on study'
    EFMNSD 'effect of family on study'
    NCDTT 'number of credits taking this term'
    TNCDTC 'total number of credit already taken at college'
    TDCM 'time of day class meet'
    GPA 'what most grades have been'
    HRSPSD 'how many hours spent studying or pre'
    HRSPNC 'how many hours spent on campus per week'
    RESFAD 'reason for attending this college'
    DEGIN 'degree intention'
    PGI 'peer group interaction'
    INWFAC 'interactions with faculty'
    FACCSDT 'faculty concern for student development and
         teaching'
    ACIND 'academic and intellectual development'
    INSGCOMT 'institutional and goal commitments'/

VALUE LABELS
    Age      1= 19 or younger
             2= 20-25
             3= 26-30
             4= 31-35
             5= 36-40
             6= 41-50
             7= over 50/
    Gender   1= Male
             2= Female/
    Ethnic   3= Black
             5= Caucasian
```

4= Hispanic
2= Asian
1= American Indian
6= Other/
Ses 1= under 20000
2= 20000-40000
3= 40000-60000
4= 60000-80000
5= 80000-100000
6= over 100000/
Engl 1= English as a first language
2= English as a second language/
Hrwk 1= 0-20
2= 21-25
3= 26-30
4= 31-35
5= 36-40
6= over 40/
Ewnsd 1= no job
2= job does not interfere with school work
3= job takes some time from school work
4= job takes a lot of time from school work/
Efmnsd 1= no family
2= family does not interfere with school work
3= family takes some time from school work
4= family takes lot of time from school work/
Ncdtt 1= 01-06
2= 07-11
3= 12-18/
Tncdtc 1= 00-15
2= 16-30
3= 31-45
4= 46-60
5= over 60/
Tdcm 1= day time
2= night time/
Gpa 1= a
2= a- b-
3= b
4= b- c-
5= lower than c-
6= none/
Hrspsd 1= 01-06
2= 06-10
3= 11-15
4= 16-20
5= over 20/
Hrspnc 1= none
2= 01-03

3= 04-06
4= 07-09
5= 10-12
6= over 12/
Resfa 1= prepare for Tranfer
2= gain skills for a new job
3= gain skills to remain or advance in curr job
4= satisfy a personal interest
5= improve english or math skills or Other/
Degin 1= working for AA or AS degree
2= working for a diploma or cert'
3= plan to transfer to 4yrs or university
4= currently enrolled in occupat or voc pr
5= others not listed/
Pgi 01= develop close relationships with other students
5 'Strongly Agree'
4 'Agree'
3 'Not Sure'
2 'Disagree'
1 'Strongly Disagree
Pgi 02= friendships have been personnally satisfying
5 'Strongly Agree'
4 'Agree'
3 'Not Sure'
2 'Disagree'
1 'Strongly Disagree
Pgi 03= relationships have had positive influence on personal growth
5 'Strongly Agree'
4 'Agree'
3 'Not Sure'
2 'Disagree'
1 'Strongly Disagree
Pgi 04= have had positive influence on intellectual growth and ideas
5 'Strongly Agree'
4 'Agree'
3 'Not Sure'
2 'Disagree'
1 'Strongly Disagree
Pgi 05= it has been difficult to meet and make friends with other students
5 'Strongly Agree'
4 'Agree'
3 'Not Sure'
2 'Disagree'
1 'Strongly Disagree
Pgi 06= student I know would be willing to listen to help me with problem

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        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree
Pgi 07= most students have values and attitudes different
        from me
        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree/
Inwfa 01= non classroom contacts have had a positive
          influence on growth
        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree
Inwfa 02= non classroom contacts had positive influence
          with intellectual
        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree
Inwfa 03= non classroom contacts had positive on my
          career
          goals
        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree
Inwfa 04= I have developed a close personal relationship
          with faculty
        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree
Inwfa 05= I am satisfied with opportunities to meet
          informally with faculty
        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree/
Faccsd 01= faculty members are generally interested in
```

```
             students
          5 'Strongly Agree'
          4 'Agree'
          3 'Not Sure'
          2 'Disagree'
          1 'Strongly Disagree
Faccsd 02= faculty members are generally not caring or
             superior teachers
          5 'Strongly Agree'
          4 'Agree'
          3 'Not Sure'
          2 'Disagree'
          1 'Strongly Disagree
Faccsd 03= faculty are willing to spend time outside
             class to discuss
          5 'Strongly Agree'
          4 'Agree'
          3 'Not Sure'
          2 'Disagree'
          1 'Strongly Disagree
Faccsd 04= most faculty are interested in helping
             students grow
          5 'Strongly Agree'
          4 'Agree'
          3 'Not Sure'
          2 'Disagree'
          1 'Strongly Disagree
Faccsd 05= most faculty members are genuinely interested
             in teaching
          5 'Strongly Agree'
          4 'Agree'
          3 'Not Sure'
          2 'Disagree'
          1 'Strongly Disagree/
Acind 01= I am satisfied with intellectual development
            since enrollment
          5 'Strongly Agree'
          4 'Agree'
          3 'Not Sure'
          2 'Disagree'
          1 'Strongly Disagree
Acind 02= My academic experience has had a positive
            influence on intellectual
          5 'Strongly Agree'
          4 'Agree'
          3 'Not Sure'
          2 'Disagree'
          1 'Strongly Disagree
Acind 03= I am satisfied with my academic experience at
```

```
               this college
             5 'Strongly Agree'
             4 'Agree'
             3 'Not Sure'
             2 'Disagree'
             1 'Strongly Disagree
    Acind 04= My course this year have been intellectually
               stimulating
             5 'Strongly Agree'
             4 'Agree'
             3 'Not Sure'
             2 'Disagree'
             1 'Strongly Disagree
    Acind 05= My interest in ideas and intellectual matters
               has increased
             5 'Strongly Agree'
             4 'Agree'
             3 'Not Sure'
             2 'Disagree'
             1 'Strongly Disagree
    Acind 06= I am more willing to attend a cultural event
               now than I was
             5 'Strongly Agree'
             4 'Agree'
             3 'Not Sure'
             2 'Disagree'
             1 'Strongly Disagree
    Acind 07= I have performed academically as well as I
               anticipated I would
             5 'Strongly Agree'
             4 'Agree'
             3 'Not Sure'
             2 'Disagree'
             1 'Strongly Disagree/
    Insgcomt 01= It is important for me to graduate from
                  college
             5 'Strongly Agree'
             4 'Agree'
             3 'Not Sure'
             2 'Disagree'
             1 'Strongly Disagree
    Insgcomt 02 = I am confident that I made the right
                decision in choosing to
             5 'Strongly Agree'
             4 'Agree'
             3 'Not Sure'
             2 'Disagree'
             1 'Strongly Disagree
    Insgcomt 03= It is likely that I will register one year
```

```
            from today
        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree
Insgcomt 04= It is important for me to graduate from this
            college
        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree
Insgcomt 05= my college education will be highly useful
            in getting future employment
        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree
Insgcomt 06= My college education will be useful in
            getting a really good job
        5 'Strongly Agree'
        4 'Agree'
        3 'Not Sure'
        2 'Disagree'
        1 'Strongly Disagree/
```

APPENDIX D

LETTER OF PERMISSION AND APPROVAL

Research Administration

University of Missouri-Kansas City
5100 Rockhill Road
Kansas City, Missouri 64110-2499

July 12, 1999

Falilu-Mohammad Matti, EdS, College Relations Coordinator
Office of Admissions
Penn Valley Community College
3201 Southwest Trafficway
Kansas City, MO 64111

itutional Review Boards
//www umkc.edu/irb

alt Health Sciences
nan Medical Center
l Holmes
sas City, MO 64108
556-3174

iatric Health Services
dren's Mercy Hospital
at Gillham
sas City, MO 64108
234-3879

ial Sciences
lth Sciences Building
) Holmes, Room 350
sas City, MO 64108
235-1777
235-1764

Re: Study #1669: Factors Affecting Minority Students' Persistence in Two-Year Community Colleges

Dear Mr. Matti:

I have reviewed your study and concluded that it is covered by §46.101(b) of the Department of Health and Human Services' regulations pertaining to the protection of human subjects of research (45 CFR 46). Therefore, your study is exempt from review by UMKC's Social Sciences Institutional Review Board (SSIRB), and you may proceed with your work. Unless a continuation request is approved, your study's exempt status will lapse on the anniversary of this letter.

If you want to make any changes to your study, you will need to obtain my prior permission. If you want to change your study in such a manner that it would no longer be exempt from SSIRB review, you will need to obtain the SSIRB's prior approval.

An SSIRB progress report/amendment request/continuation request/completion report form is enclosed. You should complete and return this form to the SSIRB at the earlier of – any request to amend your study, completion of your work, or the anniversary of this letter.

If we can be of further assistance, please don't hesitate to call the SSIRB Administrator, Cori Brown (235-1764) or me (235-1777 [or] 221-1100). Best wishes for a successful study.

Very truly yours,

Don Reynolds

Don Reynolds, JD, Chair 4y cB
Social Sciences Institutional Review Board

CC: Dr. Richard Palm

Enclosure

Research Administration

University of Missouri-Kansas City
5100 Rockhill Road
Kansas City, Missouri 64110-2499

UMKC

tutional Review Boards
'www umkc edu/irb

lt Health Sciences
an Medical Center
Holmes
as City, MO 64108
56-3174

atric Health Services
ren's Mercy Hospital
at Gillham
as City, MO 64108
34-3879

al Sciences
h Sciences Building
Holmes, Room 350
as City, MO 64108
235-1777
235-1764

July 12, 1999

Falilu-Mohammad Mattu, EdS, College Relations Coordinator
Office of Admissions
Penn Valley Community College
3201 Southwest Trafficway
Kansas City, MO 64111

Re: Study #1669: Factors Affecting Minority Students' Persistence in Two-Year Community Colleges

Dear Mr. Mattu:

I have reviewed your study and concluded that it is covered by §46 101(b) of the Department of Health and Human Services' regulations pertaining to the protection of human subjects of research (45 CFR 46). Therefore, your study is exempt from review by UMKC's Social Sciences Institutional Review Board (SSIRB), and you may proceed with your work. Unless a continuation request is approved, your study's exempt status will lapse on the anniversary of this letter.

If you want to make any changes to your study, you will need to obtain my prior permission. If you want to change your study in such a manner that it would no longer be exempt from SSIRB review, you will need to obtain the SSIRB's prior approval.

An SSIRB progress report/amendment request/continuation request/completion report form is enclosed. You should complete and return this form to the SSIRB at the earlier of – any request to amend your study, completion of your work, or the anniversary of this letter.

If we can be of further assistance, please don't hesitate to call the SSIRB Administrator, Cori Brown (235-1764) or me (235-1777 [or] 221-1100). Best wishes for a successful study.

Very truly yours,

Don Reynolds

Don Reynolds, JD, Chair
Social Sciences Institutional Review Board

CC: Dr. Richard Palm

Enclosure

University of Missouri - Kansas City
School of Graduate Studies

Approval of Interdisciplinary Ph.D. Research Proposal

The undersigned have examined the attached dissertation proposal entitled:

FACTORS AFFECTING MINORITY STUDENTS' PERSISTENCE IN

TWO-YEAR COMMUNITY COLLEGES

Presented by: (name) FALILU-MOHAMMAD MATTI (I.D.#) 257 - 35 - 1936

(address) 6805 E. 98th Terr., Kansas City, MO 64134

We hereby certify that in our opinion this proposal is worthy of acceptance and give the candidate permission to proceed with the study as proposed:

4/23/99
(Chairman) Palm (Date)

6/2/99
(Committee member) Manzo

5/20/99
(Committee member) Mills

6/10/99
(Committee member) Niang

5/31/99
(Committee member) Eubanks

(Committee member)

(Date Approved) Approved by the appropriate Institutional Review Board, the Animal Care and Use Committee, the Institutional Biosafety Committee, or the Radiation Safety Committee.

OR

Approval not required for this study because:

When signed, please send this form with a copy of the Research Proposal to:

Dean, School of Graduate Studies
Administrative Center 341

(Date received by School of Graduate Studies)

SGS form 1/96

Falilu Mohammad A. Matti

6805 E. 98th Terrace Kansas City, Missouri 64134 (816) 761-0430

RECEIVED
MAR 23 1999
PRESIDENTS OFFICE
PENN VALLEY COMM. COLLEGE

Dr. Jackie Snyder
Penn Valley Community College
3201 Southwest Trafficway
Kansas City, MO 64111

March 17, 1999

Dear Dr. Snyder:

I enjoyed meeting you at the MCC Board of Trustees reception at Penn Valley Community College. As you already know, in addition to my employment at Penn Valley Community College, I am currently working on my dissertation study and would like your permission to access information regarding associate degree students enrolled at Penn Valley Community College to conduct a study. This study researches factors influencing minority students' persistence and withdrawal behavior in two-year college setting.

The results of the study may provide information to educators and administrators relative to factors affecting minority students' persistence and withdrawal behavior. In addition, the results of this research could be used to advise students and provide necessary supports and programs which meet their needs.

I would like to offer Penn Valley Community College students the opportunity to participate in this study. Participation would require about 20-30 minutes of their time in one setting. Students would be asked to complete two instruments; student demographics characteristics data form developed by the researcher and the Institutional Integration Scale (IIS).

Participation in the study would be completely voluntary. Participants would be informed of the purpose of the study and their rights as subjects. The students anonymity and confidentiality of their responses will be ensured. All instruments collected will be numbered in packets and sealed as they are returned. I do not need to know students' identities since no one will be identified in any way. All participants will be anonymous.

Thank you for your help.

Sincerely,
FMohammad Matti
Falilu Mohammad Matti

Falilu Mohammad Matti has my permission to survey the students.

Jackie Snyder
President's Signature

3/25/99
Date

Falilu Mohammad A. Matti
6805 E. 98th Terrace Kansas City, Missouri 64134 (816) 761-0430

Dr. Fred L. Grogan
Longview Community College
500 Southwest Longview Road
Lee's Summit, MO 64081-2105

March 17, 1999

Dear Dr. Grogan:

I enjoyed meeting you at the MCC Board of Trustees reception at Penn Valley Community College. As you already know, in addition to my employment at Penn Valley Community College, I am currently working on my dissertation study and would like your permission to access information regarding associate degree students enrolled at Longview Community College to conduct a study. This study researches factors influencing minority students' persistence and withdrawal behavior in two-year college setting.

The results of the study may provide information to educators and administrators relative to factors affecting minority students' persistence and withdrawal behavior. In addition, the results of this research could be used to advise students and provide necessary supports and programs which meet their needs.

I would like to offer Longview Community College students the opportunity to participate in this study. Participation would require about 20-30 minutes of their time in one setting. Students would be asked to complete two instruments; student demographics characteristics data form developed by the researcher and the Institutional Integration Scale (IIS).

Participation in the study would be completely voluntary. Participants would be informed of the purpose of the study and their rights as subjects. The students anonymity and confidentiality of their responses will be ensured. All instruments collected will be numbered in packets and sealed as they are returned. I do not need to know students' identities since no one will be identified in any way. All participants will be anonymous.

Thank you for your help.

Sincerely,
F Mohammad Matti
Falilu Mohammad Matti

Falilu Mohammad Matti has my permission to survey the students.

Fred L. Grogan 4/1/99
President's Signature Date

Falilu Mohammad A. Matti
6805 E. 98th Terrace Kansas City, Missouri 64134 (816) 761-0430

March 10, 1999

Dr. Ernest T. Pascarella
College of Education,
University of Iowa,
Iowa City, IA 52242-1396

Dear Dr. Pascarella:

As a doctoral student at the University of Missouri-Kansas City. I am researching factors affecting minority students persistence and withdrawal behavior in a community college setting. I am requesting permission to use and reproduce the Institutional Integration Scale instrument which you developed.

My faculty advisor requested I obtain permission to use and reproduce the tool. He explained that when an instrument is published, sometimes a copyright is held by the publishing company.

I would appreciate your help with regards to granting me permission to use the Institutional Integration scale instrument for my research and your respond to this request is very essential in making it possible to proceed. I can assure you that the instrument will be used for the purpose, I have stated.

Thank you for your assistance in this request.

Sincerely,

FMohammad Matti

Falilu Mohammad Matti

Doctoral student at the University of Missouri-Kansas City
(H) 816-761-0430
(W) 816-759-4623

Permission Granted: Sure: We never copyrighted the instrument so anyone can use it. E.

Permission Denied: ______________________

Signature: Ernest Pascarella Date: 3/15/99

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VITA

Falilu-Mohammad Matti was born near Idumagbo, Lagos state, Nigeria in 1958. Most of Matti's elementary and secondary school years were spent in Lokoja, Kwara State. He was educated in Lokoja, Nigeria's private school, there he graduated from Bishop Ajayi Crowther Memorial Secondary School in 1979. After graduation, he worked for Liver Brothers Nigeria Ltd., and later came to the United States for further studies.

In August of 1989, Matti graduated with a Bachelor of Science, with a major in accounting and a minor in English from Jacksonville State University, Jacksonville, Alabama. In May of 1991, Matti began a master's program in Aviation Safety Management at Central Missouri State University, Warrensburg, Missouri, where he earned his master's degree in 1992 and his Education Specialist degree in industrial arts and technology in 1993. Furthermore, in December of 1992, he accepted a Claims Technician position with the State of Missouri, Department of Labor, Division of Employment Services, where he was employed for five years.

In summer of 1994, Matti began working toward his Ph.D. in Urban Leadership and Policy Studies in Education at the University of Missouri-Kansas City. During his graduate studies, he served as an intern at Penn Valley Community

College, where he learned the various aspects and responsibilities a college administrator must be prepared to deal with daily.

Matti is currently working as a Mathematics Teacher, at Westport High School, Kansas City, MO, where he is employed and searching for opportunity to utilize his abilities and life experiences. Upon completion of his Ph.D. degree, Matti intends to pursue an academic career in teaching, research and service in higher education. The professional objectives for Matti are teaching and administration in organizations of higher education.

Matti is currently working on publishing his dissertation, and he has yet to publish articles in professional journals, even though he has been on the program for state, regional, and national professional meetings. Professional memberships include the Missouri Community College Association, National Association of Student Personnel Administrators (NASPA), American Association of Higher Education, National Education Association, National Higher Education Association and the International Association of Personnel in Employment Security.